Three Years of Building Bitcoin From the Ground Up

vinteum

Intro

In 2022, we launched Vinteum with a simple idea: Bitcoin development should be as decentralized and global as Bitcoin itself.

Three years later, we've supported new contributors, launched programs, funded research, hosted events, and helped build a thriving community of developers in Brazil and beyond. All of this has been dedicated to the open-source infrastructure that keeps Bitcoin secure, usable, and free.

This report tells that story. It's a look at how far we've come, who's helped us along the way, and why we're just getting started.

"This isn't just about funding developers. It's about creating a space where people from our region can believe they belong in Bitcoin, can contribute meaningfully, and can help shape its future."

Lucas Ferreira

Our Story and Mission

How It Started

The story of Vinteum didn't begin with a launch announcement. It began a few years earlier with a dream, a question, and a developer.

In 2019, after returning from Bitcoin 2019 in San Francisco, Lucas Ferreira came back to Brazil with a blurry but persistent goal: to one day fund a Brazilian developer to contribute to Bitcoin. At the time, there were no visible paths from Brazil into Bitcoin Core development. So before funding could be a question, there had to be someone to fund.

That spark led to a long process of searching, recruiting, and helping early contributors take their first steps. A failed attempt to organize a fundraising conference in 2020, followed by the COVID-19 pandemic, stalled the original plan. But a silver lining appeared when Chaincode Labs launched its first online Bitcoin Seminars, and Lucas helped introduce seven Brazilian engineers to the program.

Of those seven, three would eventually go on to become full-time open-source Bitcoin developers. Bruno Garcia became a Bitcoin Core contributor, Níckolas Goline now maintains the NLightning implementation and is supported by OpenSats, and w0xlt, while choosing to contribute pseudonymously, became an active developer and later joined the team at LocalHost in San Francisco. These outcomes weren't random. They were the first proof points that guidance, community, and global connection could unlock local potential.

In the years that followed, Bruno would go on to make meaningful contributions to Bitcoin Core, some of which were covered by Brazilian media. Suddenly, contributing to Bitcoin Core didn't feel so distant anymore. Representation inspires participation.

Once Bruno began making regular contributions, Lucas focused on finding ways to support his work. A part-time grant from Brink helped get him started. Lucas began discussing a full-time grant with OKX, but as the idea evolved, that funding ended up becoming part of the seed capital for launching Vinteum itself. As the conversations around grants evolved, so did the vision. Inspired by the idea of a “10×10 model” where multiple small and independent organizations fund Bitcoin development globally, Vinteum was born.

André Neves, a Brazilian engineer who had participated in the very first Chaincode Labs residency back in 2018, joined as co-founder. His experience as an entrepreneur, fundraiser, and CTO at ZBD, along with his strong network in the global Bitcoin space, brought crucial complementary strengths to Lucas's on-the-ground efforts in Brazil. While Lucas focused on building the local pipeline and developer community, André helped open doors, secure funding, and build strategic relationships that gave Vinteum a strong foundation from day one. Bruno became Vinteum’s first grantee, and later, its Head of Engineering and a member of the board. He has been instrumental in defining our technical direction and helping onboard the next generation of developers.

Vinteum officially launched in 2022, but its mission was shaped long before. We’re here to build and scale what Bruno and André experienced: real pathways for open-source contributors in Brazil and Latin America to work on Bitcoin full-time.

Why We Exist

Bitcoin's strength lies in its openness. Anyone, anywhere can use it, build on it, and contribute to its future. To fulfill its potential as a tool for freedom and financial sovereignty, Bitcoin needs a diverse, global community of contributors who bring different experiences, perspectives, and challenges to the table.

Bitcoin development needs to be global. But global starts local.

We exist to empower developers in Brazil to contribute to Bitcoin Core, the Lightning Network, and other critical open-source infrastructure. Not just by funding them, but by training, mentoring, and building a community around them.

We believe that when people see themselves reflected in those contributing to Bitcoin, it unlocks something deeper: the sense that this is possible, that this belongs to them too. We saw that happen with Bruno, and over the past three years we have continued to see it happen again and again through the developers we've supported and inspired. What began as a spark has grown into a visible and growing movement.

Our Principles

Representation Inspires Participation

1

When people see developers from their country contributing to Bitcoin, it stops being abstract. It becomes personal, tangible, achievable.

Local-First Matters

2

Global impact is built on local trust. We start by serving our local ecosystem, then connect it outward

In-Person Over Everything

3

Workshops, meetups, retreats. Meaningful collaboration happens face to face.

Train the Next, Not Just Fund the Best

4

We invest in people at all stages, not just those already proven. The future of Bitcoin depends on the next generation, not just the current one.

Open Source Is a Culture, Not a Codebase

5

Beyond code, we promote a way of working: transparent, public, peer-reviewed, and built for the common good.

Global Connections Multiply Local Impact

6

Our international partners and global collaborators don’t replace local efforts. They amplify them.

Programs and Community

Over the past three years, we've built a structured set of programs to train, support, and connect Bitcoin developers at every stage of their journey. From newcomers to seasoned contributors, from study groups to funding opportunities, these initiatives form the backbone of Vinteum's impact.

Mastering Seminars:

Our Mastering Seminars are weekly study groups built around the books Mastering Bitcoin and Mastering the Lightning Network (Antonopoulos, et al). Open to both developers and non-developers, the sessions are designed for anyone interested in understanding Bitcoin and Lightning's technical foundations more deeply. Each meeting blends collaborative reading, peer discussion, and Socratic questioning to unpack complex topics and build a solid understanding from first principles.

Bitcoin Dev Launchpad (BDL):

The Bitcoin Dev Launchpad is our flagship program for onboarding new open-source contributors. Over 12 weeks, participants follow a self-directed curriculum with hands-on assignments, guided mentorship, and peer collaboration. It's the best pathway into our Fellowship Program and a foundation for meaningful contributions across the Bitcoin and Lightning ecosystem.

Participants engage with experienced contributors from projects like Bitcoin Core, BDK, Floresta, LND, Ark, and Stratum V2, among others. The program includes a two-week in-person residency at Casa21 in São Paulo. Then it concludes at Bitcoin Plus Plus Brazil in Florianópolis, an event we co-host in partnership with Lisa Neigut to foster collaboration, deepen learning, and help participants integrate into the broader developer community.

Fellowship and Grants Program:

Vinteum supports open-source contributors at different stages through two complementary programs. The Fellowship Program is aimed at early-career developers who are still exploring their path in Bitcoin development.

Over six months, fellows receive financial support, regular mentorship, and technical guidance, helping them build experience, confidence, and clarity on where and how they want to contribute.

The Grants Program is geared toward more experienced contributors working on critical infrastructure, protocol research, implementations, and tooling. These grants are longer-term and flexible, giving developers the autonomy to focus on meaningful work that strengthens Bitcoin's foundations.

BitDevs Across Brazil:

We help organize monthly BitDevs meetups in six Brazilian cities: São Paulo, Rio de Janeiro, Brasília, Belo Horizonte, Curitiba, and Porto Alegre. These gatherings follow the Socratic format established by the original BitDevs NYC and provide inclusive, high-signal spaces for technical discussion and community-building.

Topics are curated from recent pull requests, research papers, and blog posts. Anyone can participate, ask questions, or give short presentations. Sessions are not recorded to encourage honest debate, and most end with informal hangouts nearby. All are welcome, but the conversation is highly technical.

Discord Community:

Our open Discord server is the digital heart of our community. It's where developers, mentors, and participants connect daily, share progress, and support one another across all our programs.

It hosts our Mastering Seminars and serves as the main collaboration hub for BDL participants. We also run weekly office hours and PR review sessions where grantees work in public, letting others learn from real development workflows and get inspired to contribute.

To support international collaboration, we offer English practice and weekly study hours where members present what they've been learning on topics like Electrum, Noise, Simplicity, and secp256k1. These sessions strengthen both technical knowledge and communication skills.

Casa21 Hackerhouse:

Located in São Paulo, Casa21 is our physical hub for learning, collaboration, and experimentation. We host workshops, meetups, and technical residencies with contributors from Brazil and abroad. It's where our online community comes together in person, where new ideas are born.

Casa21 is more than just a venue. It is a 24/7 space where developers work side by side, helping each other debug, test, and brainstorm. It also hosts Brazil's most active BitDevs meetup and serves as a staging ground for technical events, study groups, and collaborative sprints. Many of our programs, such as the Bitcoin Dev Launchpad, include in-person components hosted at Casa21. We also host retreats for open-source teams like Floresta, Krux, and Seedsigner, giving contributors focused time to collaborate on their projects.

Casa21 is also home to our local infrastructure. We run a dedicated server for fuzzing, monitoring, and maintaining a full Bitcoin stack, including Electrum and Mempool, as well as experimental deployments such as Utreexo and open mining pools. By providing a welcoming and well-equipped environment, Casa21 lowers the barrier for local talent to get involved in Bitcoin development and helps bridge the Brazilian and global ecosystems.

Head of Engineering Spotlight: Bruno Garcia

Bruno Garcia began contributing to Bitcoin projects in 2021, shortly after attending the Chaincode Labs seminar. Since then, he has focused primarily on quality assurance and security initiatives.

One of Bruno's key contributions has been to Bitcoin Core. Throughout 2024 and 2025 (to date), he has made 70 commits to master and authored over 800 review comments. His work spans a variety of areas including fuzz testing, test coverage, bug fixes, and improvements to wallet and peer-to-peer functionality.

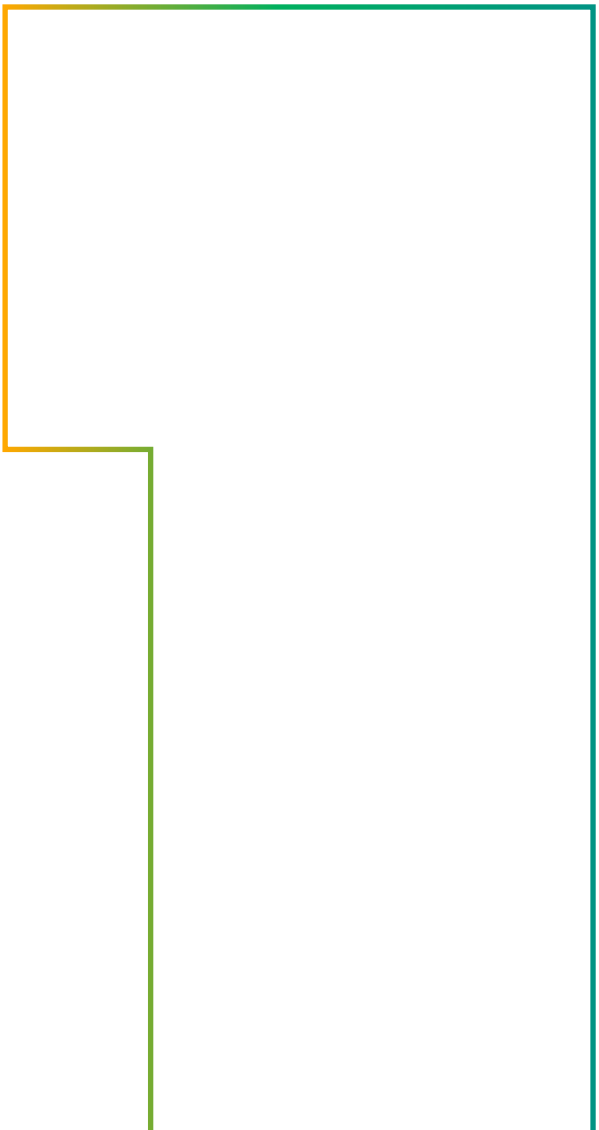
In 2024, Bruno redesigned bitcoin-fuzz into a modular architecture similar to cryptofuzz. This tool performs differential fuzzing across multiple Bitcoin and Lightning implementations and has led to the discovery and reporting of more than 30 bugs and several vulnerabilities. It now supports Bitcoin Core, rust-bitcoin, rust-miniscript, lnd, c-lightning, rust-lightning, btcd, nlightning, nbitcoin, and Embit, with over 10 specialized fuzz targets.

He also created a mutation testing tool tailored specifically for Bitcoin Core. Built with targeted mutation operators and code pattern recognition, it powers the backend of corecheck.dev/mutation, a site that provides weekly mutation testing reports. This work stems from his academic research and helps ensure robust and reliable test coverage for Bitcoin Core.

Beyond these projects, Bruno has contributed to several others. He disclosed a vulnerability in rust-miniscript, added fuzz targets for multiple Rust-based Bitcoin libraries, and fixed a bug in btcd. As a researcher, he authored two papers on fuzzing and P2P testing: “Towards differential fuzzing to reduce manual efforts to identify equivalent mutants: A preliminary study” and “Software testing for peer-to-peer systems: Challenges and the state-of-the-art.”

In addition to his direct development work, Bruno plays a vital role within Vinteum. As Head of Engineering and board member, he supports and reviews the work of our grantees and fellows, offering technical feedback and helping shape their contributions. He monitors their progress through GitHub and periodic reports, helping ensure quality, accountability, and continued learning across our developer community.

The following pages highlight the work of the developers supported through our grant and fellowship programs.



Grantee Report

Grantee Report: Davidson Souza

Davidson Souza's journey with Vinteum began with a bold idea: to showcase Utreexo's potential through a lightweight, user-friendly Electrum server. What started as a simple demo quickly evolved into a broader infrastructure project. His earlier work on rustreexo paved the way for Floresta, a full Bitcoin node written from scratch in Rust. In 2023, he introduced libfloresta, a modular library version that can be embedded into wallets and applications. The goal was clear: build a node implementation that preserves full security and privacy while significantly reducing the resource demands of traditional full nodes.

Reducing the cost of running a node is one of the most important paths toward making Bitcoin more decentralized and censorship-resistant. By enabling users to run fully validating nodes on less powerful devices, Floresta helps ensure that self-custody, privacy, and verification remain accessible to anyone in the world, regardless of bandwidth or hardware constraints.

Throughout 2025, Davidson focused almost exclusively on advancing Floresta, rustreexo, and the formal Utreexo BIP specification. As Floresta's lead maintainer, he authored 29 pull requests and reviewed every one of the 129 merged that year. He enforced new coding standards, implemented infrastructure for continuous fuzz testing, and introduced reproducibility improvements. These efforts brought Floresta a step closer to the robustness and reliability expected from production-ready Bitcoin infrastructure.

Major features developed by contributors and reviewed by Davidson include BIP324 encrypted P2P transport, a new memory-efficient chainstore module, a full integration test suite inspired by Bitcoin Core, and initial support for a JSON-RPC interface compatible with Core. Davidson also proposed improvements to libbitcoinkernel, refined Floresta's consensus integration, and improved its documentation and dependency hygiene.

Davidson has actively contributed to the Utreexo project. He wrote and maintains a standards-compliant Rust library implementing its core protocols, and co-authored a set of BIPs specifying how Utreexo will integrate with the Bitcoin network. Multiple node implementations increase Bitcoin's resilience by introducing diversity in codebases, enabling alternative designs, and reducing reliance on a single implementation. Floresta supports these goals while offering greater flexibility for building custom tools and infrastructure.

Looking ahead, Davidson plans to continue improving Floresta's usability and reliability. Focusing on performance and developer experience to allow more projects to integrate with Floresta. On the rustreexo side, he aims to further optimize performance and documentation. With interest from early adopters like Starkware and Output-Zero, the upcoming release of the Utreexo BIPs is expected to broaden adoption and invite more community feedback.

Beyond his code contributions, Davidson also plays an important educational role by mentoring participants in Vinteum's Launchpad and Fellowship programs and co-hosting the Vinteum Bitcoin Optech Recap, a weekly podcast in Portuguese. His broad skill set, spanning hands-on implementation and protocol design, makes him a rare profile in the ecosystem. He is uniquely positioned at the intersection of research and engineering and is helping shape the future of Bitcoin node design.

Grantee Report: Leonardo Lima

Leonardo began his journey into Bitcoin development through the Summer of Bitcoin program, which he discovered via Vinteum. Participating in both the 2022 and 2023 editions, he made his first contributions to open-source projects like Bitcoin Dev Kit (BDK) and Fedimint, with support and mentorship from the Vinteum community. These early experiences laid the foundation for a long-term commitment to the ecosystem.

BDK is a modular and flexible library for building Bitcoin wallets in Rust. It is widely used in both open-source and commercial wallet projects and plays a key role in enabling privacy-preserving, self-custodial applications. By supporting maintainers and contributors like Leonardo, we help ensure that BDK continues to be reliable, secure, and well-maintained infrastructure for the next generation of Bitcoin applications.

In 2024, Leonardo's most impactful work was the successful implementation of native Tor support in Fedimint. This required months of intensive work across the stack, from fixing an upstream JSON-RPC library that leaked Tor connections to the clearnet, to resolving TLS conflicts and improving privacy for users connecting to federations over Tor. His contributions have already been adopted in production, including by the Harbor project.

At the same time, he contributed heavily to the BDK 1.0.0 release, working on everything from Rust-Bitcoin upgrades and security fixes to platform compatibility and networking reliability. One notable fix enabled BDK to support Electrum servers with self-signed TLS certificates, a critical need for privacy-conscious users running their own infrastructure. These contributions spanned over 25 authored PRs and nearly 200 code reviews.

In 2025, Leonardo became a maintainer of the BDK project. With his focus now fully on BDK, he's tackling complex architectural changes, such as extracting signer logic, expanding testing infrastructure, and researching next-generation blockchain client crates. One promising direction is the integration of BDK with Floresta's Utreexo node, developed in close collaboration with Vinteum fellows. This work aims to enable fully validating Bitcoin wallets without the traditional storage and bandwidth burdens.

Beyond code, Leonardo remains active in the community, participating in BitDevs, speaking at Satsconf, and co-hosting PR Review Clubs as part of his grant. His sustained contributions reflect both technical excellence and a deep commitment to building the tools Bitcoin needs to scale securely and privately.

Grantee Report: Plebhash

Plebhash is an engineer with extensive experience in embedded systems and blockchain-related development. Although he had been a Bitcoiner and miner for years, his deeper technical involvement with the protocol began after participating in one of the first iterations of the Mastering Bitcoin program organized by Vinteum. From there, he started attending BitDevs meetups in São Paulo and later founded BitDevs Belo Horizonte with Vinteum's support. Conversations with our grantees and broader community helped illuminate the path toward open-source Bitcoin development as a viable career. At the time, Vinteum didn't have the financial capacity to bring him on board, but we encouraged and supported him on his journey, and he went on to receive a grant from Spiral. In 2025, with our budget in better shape, we were finally able to bring him in as our grantee.

Since then, Plebhash has been focused on advancing the Stratum V2 Reference Implementation (SRI), a Rust-based suite implementing the next-generation Bitcoin mining protocol. Stratum V2 improves security and decentralization in Bitcoin mining by enabling miners, not just pool operators, to select transactions for inclusion in blocks. This is crucial for preserving censorship resistance and aligning incentives across the mining stack. Vinteum funds this work because protocol-level improvements to mining have long-term implications for Bitcoin's decentralization and resilience.

Plebhash's main focus has been preparing SRI for production use by refining its APIs, improving test coverage, maintaining a structured release process, and supporting early adopters. He also plays a key role in shaping the Stratum V2 specification, helping ensure clarity and consistency for future implementers. To date, he has made over 415 commits and 192 PRs to the main SRI repository, and 45 commits and 14 PRs to the Sv2 spec repo, along with more than 235 PR reviews in SRI and 6 in the spec repo.

In parallel, Plebhash maintains a dedicated SRI community signet, a custom Bitcoin testnet that enables realistic live network testing without the limitations of public testnets. He recently mentored a Vinteum fellow emerging from the BDL program on the development of Pleblottery, a solo and lottery mining tool built on top of SRI. Although functional as a sovereign, pleb-friendly mining solution, Pleblottery was primarily designed to showcase the tower-stratum middleware and help validate the maturity of the SRI APIs. With the project now complete, the fellow is focusing on deeper contributions to SRI itself.

Throughout his journey, Plebhash has also contributed to education and outreach efforts in the mining space. He participated in the BOB Residency, created a YouTube series on Stratum V2, and led hands-on workshops at events like BTC Prague, Bitcoin Plus Plus, Bitshala Summit, and Satsconf.

His trajectory shows how highly skilled engineers can transition into open-source Bitcoin development with the right community support. Plebhash's dedication to SRI, to decentralizing mining, and to protocol quality makes him a valuable addition to Vinteum's developer network.

Grantee Report: Pins

Pins joined Vinteum as a grantee in March 2025, focusing on contributions to the Lightning Network, particularly in the LND implementation. Although his open-source journey began recently, his path into Bitcoin has deep roots. He started his career in the 1990s as a software developer at companies like Itautec and HP, building and integrating banking systems. Over time, he transitioned into management and later into business development and executive sales roles at HP and Cylance/Blackberry. His growing interest in Bitcoin reignited his passion for building. After a stint in asset management and a period doing on-chain analysis at Glassnode, he became involved with the Vinteum community through Satsconf and became a regular at BitDevs São Paulo and Casa21.

Determined to return to engineering, Pins joined the first edition of the Chaincode BOSS Program. At the time, Vinteum partnered with Chaincode to help promote the program in Brazil and offer local mentorship to Brazilian participants. Pins stood out in the program and naturally chose LND as the project he would contribute to, drawing from his experience operating an LND routing node for over three years. His perspective as an advanced user helped him identify areas where he could make meaningful contributions.

Since becoming a grantee, he has authored and reviewed multiple pull requests, with 31 code reviews, 9 PRs, and 15 commits merged into the main repository. Notable contributions include PR #9127, which extended blinded path Bolt11 invoice support by allowing senders to specify a preferred list of incoming channels, and PR #9625, which introduced a deletecanceledinvoices RPC to improve invoice lifecycle management.

Lightning is becoming the interoperability layer of the Bitcoin ecosystem. It's not just a solution for fast payments or scalability. As new protocols emerge, such as Ark, Fedimint, Cashu and Taproot Assets, many of them rely on Lightning to connect with the broader Bitcoin economy. It is the protocol that links these subnetworks together, enabling users to move value seamlessly between different environments. LND is the most widely used Lightning implementation, and strengthening its developer base is critical to ensuring that the network remains secure, reliable and future-proof. By supporting contributors like Pins, Vinteum helps fortify Lightning as the common language of Bitcoin’s growing modular stack.

He also dedicates part of his time to educational efforts, facilitating peer learning in Vinteum’s Mastering Seminars and running weekly LND Office Hours, where he works on issues live and answers questions about LND and Lightning development in general.

Grantee Report: Erick Cestari

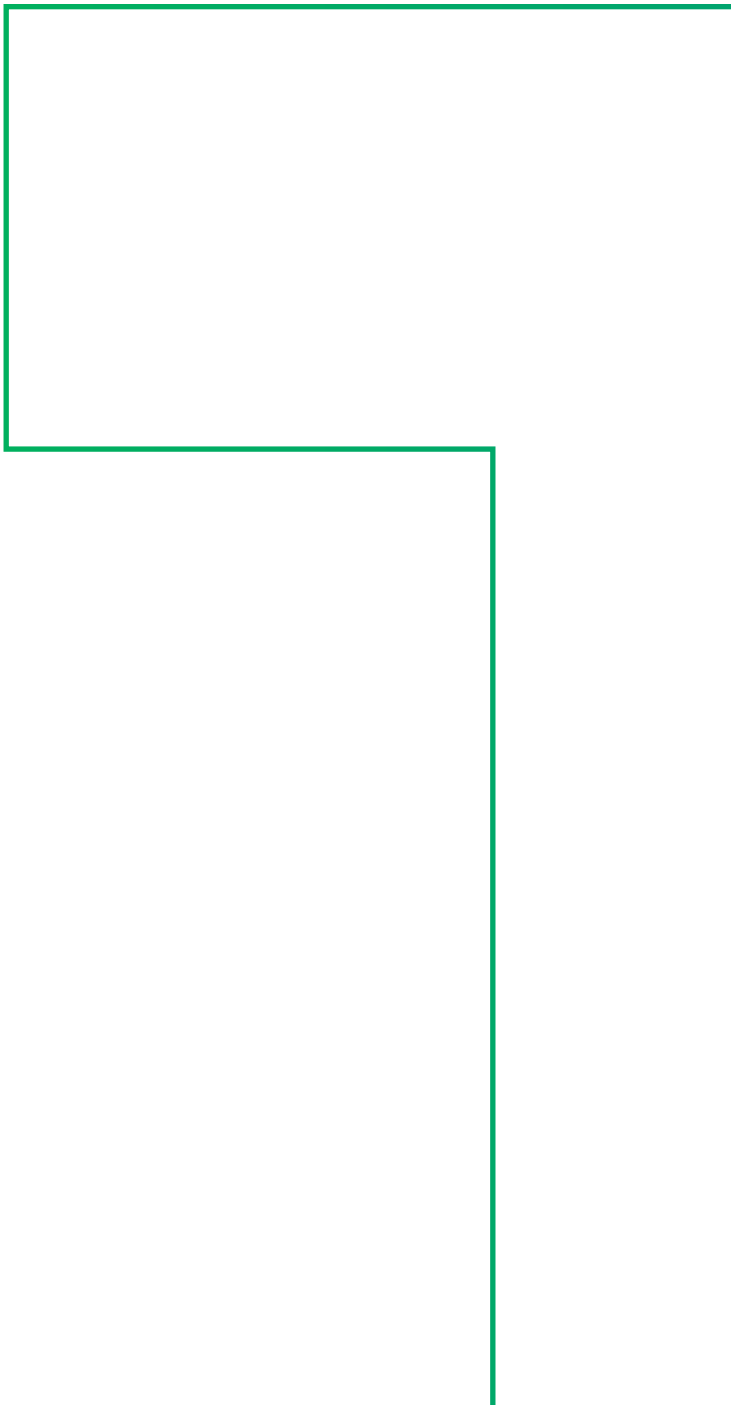
Erick Cestari is the newest grantee supported by Vinteum. He first joined our ecosystem through the Bitcoin Dev Launchpad, where he quickly stood out for his curiosity, consistency, and ability to grasp complex technical topics. At the start of the program, Erick had limited experience with Bitcoin, but a strong foundation in low-level development and an eagerness to learn. Within just a few months, he evolved into a key contributor to some of the most security-critical areas of the Bitcoin ecosystem.

Throughout his six-month fellowship, Erick focused primarily on fuzzing, test coverage, and specification compliance across several Lightning Network implementations. He extended Bitcoinfuzz by adding support for BOLT 11 and BOLT 12 invoice deserialization, enabling the comparison of behavior across different Lightning implementations. His work uncovered inconsistencies and vulnerabilities in how nodes handle malformed or edge-case data, helping strengthen the robustness of these systems. He also created custom mutators for targeted fuzzing, designed CI pipelines for automatic fuzz runs on every PR, and added support for projects like Core Lightning, LND, Rust-Lightning, NLightning, and ACINQ's Eclair and lightning-kmp.

In addition to his fuzzing work, Erick made several valuable upstream contributions to Rust-Bitcoin. These included the implementation of a XOnlyPublicKey wrapper to improve error handling, bidirectional conversions for IP address types, script API improvements like push_relative_lock_time(), and the review and patching of a consensus deserialization issue. His contributions have already been merged and deployed in production across multiple repositories.

Erick also identified and reported multiple spec compliance issues in Lightning implementations and made a responsible disclosure of a critical security vulnerability affecting one Bitcoin implementation. While the details have not been made public yet, his work showcased the importance of proactive, well-informed testing and responsible security practices.

Less than a year after writing his first lines of Bitcoin-related code, Erick is now a recognized contributor, collaborating with maintainers from LND, Rust-Bitcoin, and fuzzing infrastructure projects. His progress underscores the impact of focused education, open-source mentorship, and early investment in promising talent. We're proud to support his journey and excited to see what he builds next.



Fellowships Report

Erick Cestari (Bitcoin-fuzz/Rust-Bitcoin):

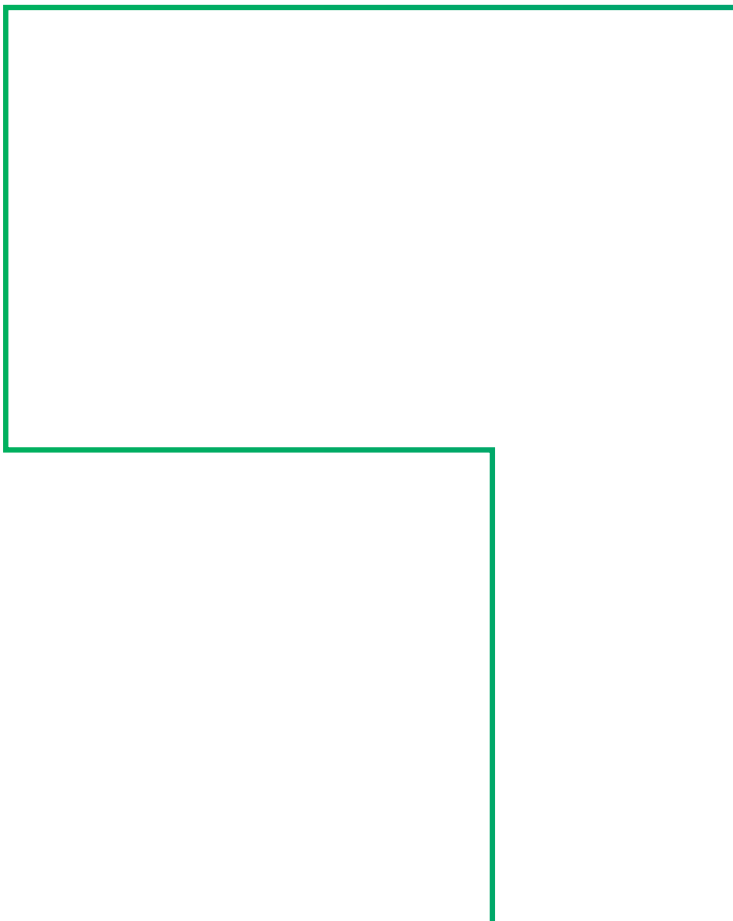
Erick recently completed his fellowship and transitioned into a Vinteum grantee. His work on Rust-Bitcoin and Bitcoinfuzz continues to deepen, and we're excited to support his journey as a long-term open-source contributor.

Luis Schwab (BDK-Floresta):

Luis began contributing to the Bitcoin Dev Kit (BDK) during the Summer of Bitcoin internship and entered the fellowship already actively involved in the project. Throughout the program, he expanded his contributions and began collaborating with the Floresta team. He leads the development of bdk-floresta, a new backend for BDK that integrates Floresta and Utreexo to support trustless, resource-efficient wallets. His work has focused on multi-network support and simplifying integration for developers building on top of the library.

Moises Pompilio (LDK-Node):

Moisés focused his fellowship on improving LDK's infrastructure and testing. He contributed to ldk-server by implementing CLI support for closing channels, adding hostname and environment variable configuration, and proposing hybrid setup options. In ldk-node, he implemented integration testing with LND, fixed a CI error involving Core Lightning, worked on property-based reorg tests, and engaged in design discussions around fees and metadata. While contributing occasionally to Bitcoinfuzz, he discovered a deserialization bug in Nlightning during fuzz testing and proposed a fix based on how LND handles missing fields.



Lucas Balieiro (Stratum V2):

Lucas focused his fellowship on Stratum V2, co-developing tower-stratum, a middleware layer that simplifies building Stratum applications. To demonstrate its capabilities, he created Pleblottery, a solo mining template provider that also serves as a stress test for tower-stratum and the SRI APIs. During an in-person sprint at Casa21, he implemented coinbase management, web integration, and a robust channel system, culminating in a major PR. He also contributed directly to the Stratum Reference Implementation by fixing bugs, improving CI performance, and automating tutorial testing. His work deepened his understanding of PoW validation and protocol design.

João Leal (Floresta):

João joined the Floresta project after participating in Summer of Bitcoin and Vinteum's Bitcoin Developer Launchpad. Since then, he has become one of the project's key contributors and maintainers. He is leading a complete rewrite of Floresta's RPC module to make it compatible with the Bitcoin Core API, enabling broader integration with wallets and infrastructure tools. João also worked on consensus validation logic, automated builds and packaging with Nix, and general refactors to improve modularity. As the project gained new contributors, he has taken on an active role in reviewing pull requests, onboarding developers, and helping shape the direction of the codebase.

Guilherme Lunhani (Floresta/Krux):

Previously a part-time contributor to Krux for over three years, QLRD has made more progress in the past three months of his Vinteum fellowship than in the previous three years. Now fully focused and backed by technical support and mentorship, he's been tackling foundational improvements across both Krux and Floresta. His work has enhanced Floresta's RPC interface and test infrastructure while significantly increasing Krux's test coverage and developer experience. This fellowship phase has unlocked his potential, allowing him to make meaningful contributions to the core of both projects.

Lucad70 (Floresta):

Lucad70 contributes to Floresta with a focus on improving usability and accessibility for developers. He has worked on refining the documentation for the API, CLI, and RPC interface, fixing inconsistencies and improving clarity. He also reviewed and submitted pull requests to address issues in memory management, backfill logic, and Proof of Work fraud proof handling. His work is helping make Floresta more approachable for new contributors while reinforcing its technical robustness and supporting future projects that aim to build on Floresta's libraries.

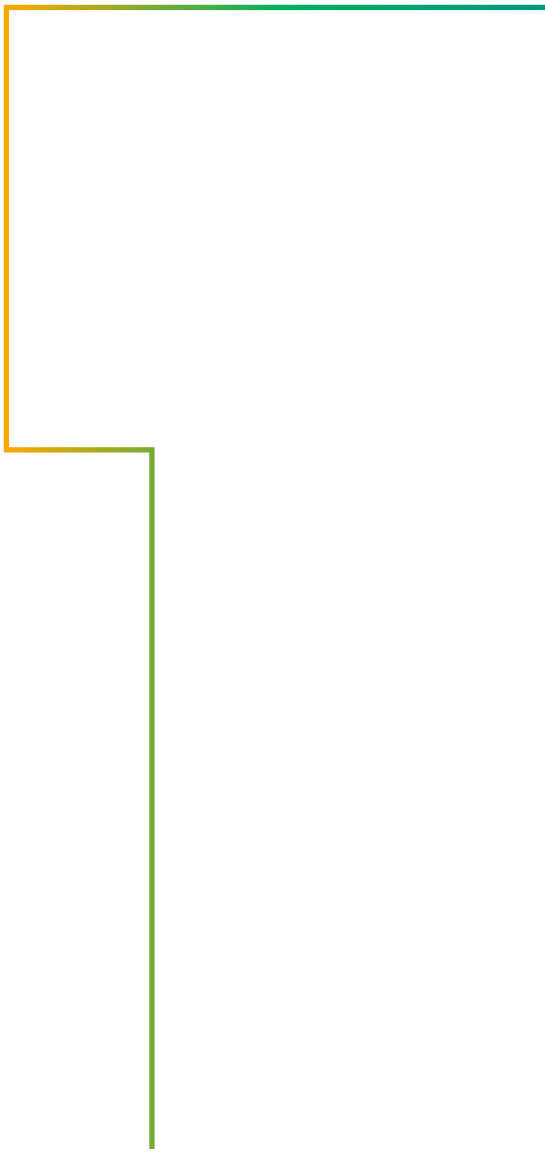
Thgo.o (BTC Pay Server):

Thgo.o is the newest fellow in our program and brings three years of professional experience in C# and .NET, with recent focus on Bitcoin and Lightning development. He was one of the top participants in our Bitcoin Dev Launchpad and has since contributed to BTCPay Server, with a few pull requests already merged. Over the next six months, his focus will be on strengthening the BTCPay plugin ecosystem, particularly through Plugin Builder 1.0, plugin discovery and trust systems, and timezone handling. He is also one of the organizers of BitDevs and a mentor in our Mastering Lightning seminars, helping onboard new contributors into the Bitcoin ecosystem.

Fellowship Outcomes and Next Steps

Many of our fellows are now well-positioned to secure funding from other organizations such as OpenSats, the BDK Foundation, and others. This is a key objective of the program: to help early-career developers build the skills, portfolio, and relationships needed to sustain their work through broader community support.

Several fellows are currently applying for grants from external organizations, driven by a few strategic reasons. First, our limited budget means we can't convert every fellow into a grantee internally. Second, receiving third-party funding reinforces the quality of our program through external validation. And finally, we aim to avoid centralizing developer funding in a single organization. We want to be one of many viable pathways for Brazilian Bitcoin devs to succeed in the ecosystem.



What's Coming

We’re just getting started. As we enter our fourth year, Vinteum is expanding its scope with new programs and gatherings that deepen our impact and strengthen the global Bitcoin developer ecosystem.

Bitcoin Dev Summit:

Since 2022, Vinteum has worked closely with Satsconf to strengthen the presence of developers and technical content at the event. Together, we’ve hosted two editions of our joint hackathon and helped bring Bitcoin’s global open-source developer community to Latin America’s largest Bitcoin conference. This year, we’re taking things a step further. As part of the growing Sats-Week ecosystem of side events, we’re launching the first edition of the Bitcoin Dev Summit.

This dedicated track will feature in-depth panels and technical talks by core contributors, protocol researchers, and experienced engineers from across the ecosystem. While Satsconf will continue to host hands-on workshops and broader technical sessions, the Dev Summit is designed for developers who want to dive deeper into Bitcoin’s protocol and implementation layers. It’s a new space for knowledge exchange, design discussions, and collaboration across teams pushing Bitcoin forward.

DIY Hardware Wallet Retreat:

We're bringing together contributors from Krux, Specter-DIY, and Seed-Signer for a week-long in-person retreat at Casa21, our hackerhouse in São Paulo. These three open-source projects rely on Embit, a shared micropython/Python3 library created by Stepan Snigirev, who will also be present to lead sessions on architecture, module design, and long-term sustainability.

The retreat creates space for deep technical collaboration and roadmap planning, especially for contributors who usually work in isolation. Each team will spend time coworking, sharing best practices, and aligning on future directions. Topics include PSBT workflows, UX for signing devices, microcontroller constraints, and Embit maintainership models.

Most of the Krux team is based in Brazil, and this retreat marks the first time many of them will meet their collaborators in person. By bringing these communities together, we hope to foster more interoperability across DIY hardware wallets and grow the ecosystem of auditable, self-custodial tools.

Floresta Developer Retreat:

This September, we're hosting a week-long retreat at Casa21 in São Paulo for the Floresta team and collaborators working on Utreexo and proof-of-work fraud proofs. The goal is to deepen alignment between protocol researchers and implementers, strengthen the Floresta codebase, and push forward innovations in lightweight full node design.

The retreat will bring together Davidson (Floresta maintainer and Utreexo BIP coauthor), Tadge Dryja (Utreexo creator), Calvin Kim (Utreexo maintainer), and Ruben Somsen (researcher behind PoW fraud proofs), among others. With all Utreexo BIP coauthors in one place, this is a rare opportunity to work toward finalizing the BIPs, refine Floresta's architecture, and map the next phase of its development.

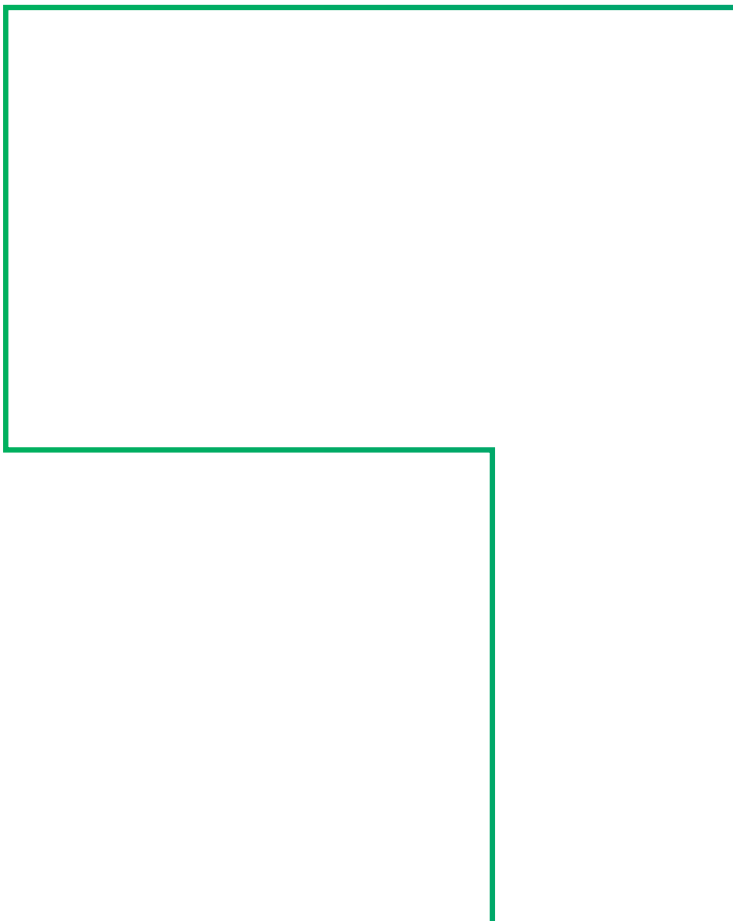
Discussions will include real-world performance trade-offs, syncing UX, node security, and long-term roadmap planning. Developers from BDK will also join to coordinate integration through the bdk-floresta crate. This retreat reflects our belief in supporting focused, high-context collaboration to unlock technical progress that is hard to achieve remotely.

Bitcoin Dev Launchpad – Cohort 2:

After a successful pilot, our educational program is back with a new cohort. The Launchpad offers selected participants 12 weeks of intensive learning followed by 2 additional weeks focused on proof-of-concept development. These final weeks are designed to evaluate participants' ability to tackle more open-ended challenges and contribute to ongoing open-source projects or novel use cases, bridging the gap between guided assignments and real-world innovation.

This second edition continues to prioritize self-learning, mentorship, and long-term open-source contributions. Assignments will include projects like building Lightning clients using the "Poor Man's Lightning" emulator and protocol-level exercises to deepen participants' understanding of peer-to-peer communication, mining and Bitcoin internals.

We're continuing the residency that wraps up the program with a two-week in-person experience split between Casa21 in São Paulo and Bitcoin++ Brazil in Florianópolis. After a successful collaboration last year, both we and Lisa Neigut — who organizes all Bitcoin++ conferences — were excited to repeat the partnership and are considering making it a recurring tradition. Dulce Villarreal will also join with the second edition of her Spanish-language residency for Latin American developers, creating space for collaboration and exchange between both cohorts.



Bitcoin Research Initiative:

Over the past year, we've been designing the Bitcoin Research Initiative, a long-term effort to foster academic engagement with Bitcoin. The program will support foundational research through undergraduate, master's, PhD, and postdoctoral fellowships, focusing on topics like protocol security, scalability, and decentralization.

Unlike other ecosystems, Bitcoin still lacks structured academic engagement. This initiative aims to change that by launching Brazil's first dedicated Bitcoin research center and building global academic partnerships.

We've already started laying the groundwork with study groups and academic advisors, but launching the full program requires multi-year funding commitments. Once the resources are secured, we'll be ready to move forward.

Open-Source Collaboration Beyond Code

The Bitcoin developer education and funding space reflects the ethos of open-source itself—open, collaborative, and iterative. We've always believed that building strong local ecosystems doesn't mean working in silos. In fact, the most effective initiatives we've seen emerge when organizations work together, share resources, and learn from one another.

We're deeply inspired by the work of Chaincode Labs, whose residency, seminars, and now the BOSS program have shaped the journeys of many of today's Bitcoin Core contributors. Similarly, we've learned a lot from the programs and documentation published by Bitshala (India), Btrust Builders (Africa), and Librería de Satoshi (Spanish-speaking Latin America). They've also adopted and adapted materials and ideas we've created. This kind of exchange makes the ecosystem stronger.They've also adopted and adapted materials and ideas we've created. This kind of exchange makes the ecosystem stronger.

We meet quarterly with Bitshala, Librería, and Btrust Builders to brainstorm, co-design programs, and share feedback. This global collaboration helps us scale and refine what we do. OpenSats and Btrust have supported several of our initiatives, helping us scale and refine what we do. In our early days, the team at Brink played a key role in advising and encouraging us. Their example continues to guide how we think about quality and impact.

Just like the development process that underpins Bitcoin, this space evolves through constant iteration, peer review, and shared goals. We're proud to be part of a network of organizations working together to onboard and support the next generation of Bitcoin developers.

Our Team

Lucas Ferreira:

Co-founder and Executive Director (Board Member)
Lucas leads Vinteum's strategy, programs, and developer support efforts. With a background in business development and Bitcoin protocol education, he previously worked at Lightning Labs and now focuses full-time on growing the open-source ecosystem in Brazil and Latin America.

André Neves:

Co-founder and Head of Partnerships (Board Member)
André supports Vinteum's fundraising and strategic outreach. He's also the co-founder and CTO of ZBD, where he has led efforts in building Lightning-based infrastructure, scaling real-world applications, and fostering its adoption across multiple industries.

Bruno Garcia:

Head of Engineering (Board Member)
Bruno is a Bitcoin Core contributor and the technical lead of Vinteum's programs. He mentors grantees and fellows, curates the educational curriculum, and contributes to various Bitcoin ecosystem projects focused on security, networking, and protocol improvements.

Prof. Edil Medeiros:

Head of Research
Edil is a professor at Universidade de Brasília and leads academic research initiatives within Vinteum. He supports curriculum development, partnerships with universities, and open research into Bitcoin-related protocols.

Carla Novais:

Operations Analyst
Carla keeps everything running smoothly. From budgeting to event logistics, she supports Vinteum's day-to-day operations and ensures our programs are well-organized and documented.

Jão Noctus:

Developer Advocate
Jão is an engineer at ZBD and an occasional contributor to open-source Bitcoin tools and libraries. At Vinteum, he helps bridge the gap between developers and the broader ecosystem, leading workshops, mentoring, and participating in technical outreach.

Lorenzo Maturano:

Developer Advocate
Lorenzo is an engineer at Bipa and an advocate for growing the Brazilian Bitcoin developer community. He supports Vinteum's educational initiatives, leads technical meetups, and works on fostering collaboration between developers across the region.

Our Supporters

None of this would be possible without the individuals and organizations who believe in Vinteum's mission. Their support has helped us grow from a small initiative into a hub for training, funding, and sustaining Bitcoin contributors in Brazil and beyond.

One of our earliest and most consistent supporters, Xapo Bank, plays a crucial role in maintaining our operations so that other funding can be fully directed toward programs.

We're especially grateful to our founding donors: Wences Casares, often called Bitcoin's patient zero in Silicon Valley for introducing many prominent investors and entrepreneurs to Bitcoin; Sebastian Serrano, CEO of Ripio and an advocate for Bitcoin adoption in Latin America; John Pfeffer, a long-time supporter of open-source Bitcoin development and co-founder of Pfeffer Capital; the global exchange OKX; and the Human Rights Foundation, whose early backing gave us the runway to launch in 2022.

Ongoing support from OpenSats, Btrust, and HRF has allowed us to expand our educational initiatives and offer grants to promising developers working on critical infrastructure and protocol research.

Supporting open-source Bitcoin development isn't just about charity. It's about securing the foundation of the technology that your products, services, and users rely on. Without constant maintenance, research, and talent development, the Bitcoin ecosystem risks stagnation or fragmentation. Companies that depend on Bitcoin's long-term success have a shared responsibility to invest in its commons.

Vinteum focuses on building that foundation in a region that has historically been underrepresented in protocol development. The interest and talent are here, but we need resources to bring more people in, offer mentorship, and fund long-term work. With more support, we can run additional training programs, support more grantees, and extend our impact beyond Brazil.

We see each donation as a vote of confidence in our values and approach. Together with our supporters, we're building a more resilient and globally connected Bitcoin ecosystem.

Support and Funding Needs

The work outlined in this report is only possible because of the generosity and vision of our supporters. As we look to expand our impact, we'll need additional funding to scale our efforts. More grantees and fellows mean more open-source contributions to Bitcoin infrastructure. More seminars and residencies mean more developers entering the ecosystem with a strong foundation. More partnerships and programs mean a stronger, more resilient network of collaborators worldwide.

We also have long-term projects like the Bitcoin Research Initiative that are ready to launch but require multi-year funding commitments to do responsibly. Supporting academic researchers, particularly those in PhD or postdoctoral roles, requires long-term planning. We've prepared the groundwork — now we're seeking partners to help us bring it to life.

Funding open-source Bitcoin development is not just philanthropy. It's investing in the security, decentralization, and resilience of Bitcoin itself.
We invite individuals, companies, and institutions to help us grow this work and support the next generation of Bitcoin contributors. If you're interested in supporting our programs or partnering with us, reach out at info@vinteum.org.

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Closing Message

Vinteum was created to strengthen the Bitcoin developer ecosystem in Brazil and Latin America. Over the past three years, we've trained and funded contributors who now play an active role in some of Bitcoin's most critical projects. We've helped grow local communities, supported emerging leaders, and built bridges with the global open-source network.

We're proud of what we've accomplished — and we're just getting started. With your support, we can go further. More developers. More infrastructure. More resilience for Bitcoin.

If you believe in this mission, join us.


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