

Pedro D'Andrea Rosalba

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🌐 [PedroRosalba](#)

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Experience

2024–2026

Software Engineer at [Herodotus](#)

- Expanded the use case of a [Zero Knowledge co-processor](#) from EVM Layer 2 storage proofs to plain merkle state proofs, enabling off-chain use cases such as matching engines, liquidation pipelines, and oracle updates for DeFi protocols.
- Engineered low-latency infrastructure for DeFi lending and prime brokerage, building high-throughput data pipelines via WS scraping to serve real-time orderbook data and RFQ systems, achieving 600–800ms latency in quote response.
- Built financial risk analysis tools leveraging quantitative modeling to price on-chain credit, achieving highly stable CVaR 99 convergence for risk spread pricing alongside sub-30ms execution.
- Created an AI risk analysis tool mapping more than 12 kinds of risks (governance protocol, smart contract, token holder concentration, etc.) across more than 30 leading DeFi protocols. Created a dependency graph with infrastructure layers (e.g., Layerzero to Aave) to showcase and analyze user portfolio risk, generating AI reports.
- Active speaker in technical workshops and panels at cryptography and blockchain events worldwide, such as Invisible Garden at Devconnect 2025 and Ethereum Brasil 2025.

2022–2024

Developer Relations at [Mediolano](#)

- Led architecture of an Intellectual Property (IP) licensing platform, bridging WordPress integration with decentralized infrastructure on Starknet, L2 for Ethereum.
- Created a marketplace where creators create programmatic revenue share and crowdsourcing systems, reducing friction from bureaucratic legacy systems.
- Integrated third-party APIs (Pinata for IPFS decentralized file storage data management) and engineered smart contracts (ERC1155) to automate bulk license generation and streamline platform monetization, licensing over 300,000 publications and increasing author revenue share by reducing third-party middlewares.
- Implemented Zero Knowledge circuits for proof of license and proof of ownership mechanisms, bringing transparency and using mathematics to prevent identity fraud while creating unique ownership systems for IPs.

2024–2026

Founder at [Rio de Janeiro University Blockchain League](#)

- Founded and scaled a blockchain engineering community through workshops, hackathons, and technical meetups.

2023–2025

Math Olympiad Instructor at [Colégio e Curso Pensi](#)

Projects

2022–2025

Open Source Contributions ([OnlyDust](#))

- Maintainer at a [project](#) in OnlyDust: creating issues, managing applicants, and performing code review.
- Contributor to Starknet developer tooling, compilers, and ZKVM infrastructure projects including Starknet Foundry and Kakarot.

2025

“Cran” — [ETHDenver 2025](#)

- Developed an FHE-based RAG AI agent enabling privacy-preserving LLM inference on EVM-compatible networks.
- Awarded [zkSync](#), [Flow](#), and [Somnia](#) network bounties at ETHDenver 2025.

Education

2024–2026

[IMPA Tech](#) — B.Sc. in Math, Computer Science

Skills

Rust, Typescript, Python, RabbitMQ, Kubernetes, GCP, Grafana, Loki, Postgres, TimescaleDB
English (fluent), Spanish (fluent), Portuguese (native), Italian (beginner)

Awards

2025

[ETHGlobal Prague 2025 Awards](#)

2024

[ETHGlobal Brussels 2024 Awards](#)

2023

Honorable Mention — International Mathematics Competition

2018–2023

Brazilian Math Olympiad — 1 Silver Medal, 1 Bronze Medal

2023

12th Place — Brazil IMO Team Selection Test