

Victor Angelo Legat Cerqueira

Full-Stack Software Engineer | Node.js, NestJS, React and Scalable Systems

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PROFESSIONAL SUMMARY

Full-Stack Software Engineer experienced in designing, developing, deploying, and maintaining production applications using TypeScript, Node.js, NestJS, React, Next.js, PostgreSQL, Redis, RabbitMQ, and Docker.

I have contributed to scalable products in the financial and AgTech sectors, working on REST APIs, microservices, asynchronous processing, external integrations, data modeling, automation, and infrastructure. My experience includes leading the technical development of a financial reconciliation platform that reduced banking audit processes from approximately three months to a few hours.

I am comfortable taking ownership of features from product requirements and architecture through implementation, testing, deployment, and production improvements. I am particularly interested in early-stage products, distributed systems, cloud infrastructure, observability, automated testing, and engineering practices that enable teams to iterate quickly and reliably.

TECHNICAL SKILLS

Backend: TypeScript and JavaScript, Node.js, NestJS, Express, REST API design and integration, Microservices architecture, Asynchronous and event-driven processing, PHP and Laravel, Python and FastAPI, Go, Rust;

Frontend: React, Next.js, Vite, TypeScript, Tailwind CSS, JavaScript, Vue, Nuxt, Responsive web applications, Component-based frontend architecture;

Databases, Messaging and Data: PostgreSQL, MySQL, MariaDB, Redis, RabbitMQ, Prisma ORM, Data modeling, SQL, Python data processing, TensorFlow, PyTorch;

Cloud, Infrastructure and DevOps: AWS, Docker, Docker Compose, Docker Swarm, GitHub Actions, CI/CD pipelines, Traefik, Linux, MinIO, RustFS, Containerized application deployment;

Engineering Practices and Tools: Git and GitHub, GitLab, Automated testing, Scrum and agile development, Sprint planning and retrospectives, Spec-Driven Development, API documentation, Code review, Claude Code, OpenAI Codex, Cursor, Ollama.

PROFESSIONAL EXPERIENCE

Full-Stack Software Engineer — MM22, Independent Contractor 03/2025 – atualmente | Ponta Grossa, Brasil

- Develop and design scalable software solutions for the financial and AgTech sectors, with a focus on data engineering, process automation, systems integration, and optimization of critical business workflows.
- Led the technical development of a financial reconciliation platform that reduced banking audit processes from approximately three months to a few hours through automation and data analysis.
- Implemented data pipelines and regression models in Python using TensorFlow to identify accounting inconsistencies and support the recovery of revenue that had not been correctly transferred.
- Designed and developed microservice-based systems using Node.js and NestJS.
- Implemented asynchronous communication between services using RabbitMQ and used Redis for caching, performance optimization, and distributed system support.
- Contributed to the development of a B2B AgTech marketplace connecting agricultural producers and suppliers, helping reduce the quotation process for agricultural inputs from months to days.
- Integrated Brazilian government and regulatory data sources, including CAR, Sintegra, and the Federal Revenue Service, to automate document validation and reduce operational risks.
- Developed web and mobile applications using React, Vite, TypeScript, and React Native.
- Worked across backend, frontend, database, infrastructure, and integration layers, taking features from requirements through implementation and production delivery.
- Modernized application infrastructure using Docker and Docker Swarm.
- Developed Go services for performance-sensitive components and supporting backend operations.
- Participated in agile development cycles, technical planning, debugging, production support, and continuous improvement of existing systems.

Systems Analyst and Full-Stack Developer — Cergat Group, Independent Contractor 06/2023 – atualmente | Brasil

- Developed the official institutional website for Cergat Group, representing the company to customers across Brazil, with a focus on performance, SEO, responsiveness, and scalability.
- Implemented the website using Next.js, React, and TypeScript.
- Designed and deployed the application infrastructure using Docker, Docker Swarm, and Traefik for service routing and load balancing.
- Proposed and presented artificial intelligence solutions focused on internal process automation and productivity improvements.
- Developed an internal system for digitizing, processing, and managing signatures, reducing manual work involved in converting physical signatures into digital assets.
- Implemented the signature management backend using NestJS.
- Used RabbitMQ for asynchronous processing and Python services for supporting image and document operations.
- Configured standardized development and production environments using Docker and Docker Compose.

- Supported administrative purchasing decisions by analyzing technical specifications and quotations for hardware and technology equipment.
- Collaborated directly with stakeholders to understand operational problems and transform them into software solutions.

SELECTED PROJECTS

ZLEditor, *Local-First LaTeX Workspace*

04/2026 – present

GitHub: <https://github.com/Brenaki/ZLEditor> 

- Created and currently maintain a self-hosted, local-first LaTeX workspace designed to provide an academic writing experience similar to a modern code editor.
- Built a browser-based editor using JavaScript and CodeMirror 6, with project navigation, file management, syntax highlighting, command autocomplete, citation autocomplete, and inline PDF preview.
- Developed the backend using Python, FastAPI, and Uvicorn.
- Implemented local LaTeX compilation using pdflatex, xelatex, and lualatex, including bibliography processing and detailed compilation logs.
- Created import and export workflows for complete LaTeX projects while preserving nested folders, images, binary assets, and fonts.
- Integrated Zotero Better BibTeX to allow users to search bibliographic libraries and insert citations directly into documents.
- Implemented an AI assistant with streaming responses and support for OpenAI, Anthropic, Google Gemini, DeepSeek, and Ollama.
- Added AI-assisted explanations for LaTeX compilation errors.
- Implemented support for Portuguese, English, and Spanish interfaces.
- Containerized the application with Docker and created desktop packaging workflows using PyInstaller.
- Configured automated tests with Pytest and coverage validation.
- Configured GitHub Actions workflows for validating and publishing project releases.

Technologies: Python, FastAPI, JavaScript, CodeMirror 6, Docker, GitHub Actions, Pytest, LiteLLM, Zotero Better BibTeX and LaTeX.

BestLanguage, *API Performance Analysis Across Programming Languages*

08/2025 – 11/2025

GitHub: <https://github.com/Brenaki/BestLanguage> 

- Designed an experimental environment to compare the performance of equivalent APIs implemented in multiple programming languages and frameworks.
- Built standardized APIs in C#, Go, Python, JavaScript, PHP, Ruby, Rust, Java, and Scala.
- Implemented the JavaScript API using Node.js and NestJS.
- Containerized the APIs to create reproducible execution environments and control CPU and memory resources.
- Sent large volumes of equivalent requests to measure response times under different infrastructure configurations.
- Collected and organized experimental data for statistical analysis.
- Applied Analysis of Variance, regression analysis, and Tukey tests using R.
- Evaluated the effects of programming language, available CPU cores, and memory allocation on API performance.

Technologies: NestJS, Node.js, Docker, Go, Rust, Java, Spring Boot, Python, Flask, PHP, Laravel, Ruby on Rails, C#, Scala, R and statistical analysis.

GraphAgent Protocol , *Decentralized Marketplace for AI Agents*

07/2025 – 10/2025

- Contributed to the development of a decentralized marketplace for artificial intelligence agents.
- Designed a model in which developers could publish agents, users could acquire access to them, and applications could execute agents securely.
- Explored interoperability between independent AI agents and decentralized applications.
- Worked with concepts involving composable AI services, transparent execution, decentralized ownership, and reduced dependency on centralized platforms.

Technologies: Rust, Internet Computer Protocol, blockchain, JSON, artificial intelligence agents and web development.

Enhancement of an L1 Genetic Variant Database for Neurodevelopmental Disorders

08/2024 – 09/2025

Undergraduate Research Project

- Contributed to the improvement of an existing genetic variant database focused on neurodevelopmental disorders.
- Developed and improved the web interface using Next.js, React, and TypeScript.
- Worked on data presentation, usability, navigation, and user experience.
- Contributed to backend and data-related features using Node.js, PostgreSQL, and Redis.
- Helped transform complex biomedical information into an accessible web-based knowledge platform.
- Collaborated with researchers to translate scientific requirements into software features.
- The project was recognized as a highlighted undergraduate research presentation at EAIC/UEPG.

Technologies: Next.js, React, TypeScript, Node.js, PostgreSQL and Redis.

Knowledge Base for Systemic Lupus Erythematosus , *Undergraduate Research Project*

08/2023 – 08/2024

- Developed a web-based knowledge platform about Systemic Lupus Erythematosus.
- Worked with biomedical data curation and the organization of scientific information.
- Developed frontend and backend functionality using Next.js, React, TypeScript, Node.js, and PostgreSQL.
- Created interfaces to help users access and understand information related to genetic factors and disease pathophysiology.
- Containerized the application environment using Docker.
- Collaborated with an academic research team throughout the development and validation process.

Technologies: Next.js, React, TypeScript, Node.js, PostgreSQL and Docker.

Analysis of the Impact of Lossy Media Compression on Machine Learning Algorithms

09/2025 – 09/2026

Undergraduate Research Project

- Research the effects of lossy compression on images, audio, and video used as inputs for machine learning models.

- Evaluate whether models trained or evaluated with compressed media can maintain accuracy levels comparable to models using original, uncompressed data.
 - Analyze how compression artifacts affect model performance, robustness, and generalization.
 - Conduct adversarial attacks to compare the vulnerability of neural networks trained on compressed and original data domains.
 - Organize experiments, datasets, performance metrics, and reproducible evaluation workflows.
- Technologies:** Python, TensorFlow, PyTorch, convolutional neural networks, machine learning, media compression and adversarial robustness.

EDUCATION

- Bachelor’s Degree in Computer Engineering** 03/2023 – present | Ponta Grossa, Paraná, Brasil
State University of Ponta Grossa — UEPG ⓘ
- Founder of the Academic Association for Software and Computer Engineering Students.
 - Participate in academic research involving software engineering, machine learning, data analysis, distributed systems, databases, and web development.
- Technical Diploma in Systems Development, Etec Taboão da Serra** ⓘ 02/2020 – 12/2021 | São Paulo, São Paulo, Brasil
- Completed a technical program in systems development integrated with secondary education.
 - Developed a mobile game for a school cultural event.
 - Published the project on the Google Play Store.

LANGUAGES

- Portuguese**
- English** — Strong reading and listening comprehension, particularly in technical contexts. Currently improving speaking fluency and confidence in daily conversations.
- Spanish**

CERTIFICATIONS AND ACHIEVEMENTS

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| • Introduction to Large Language Models — Google Cloud ⓘ | • Introduction to Generative AI — Google Cloud ⓘ | • Introduction to Responsible AI — Google Cloud ⓘ |
| • Google Cloud Computing Foundations: Cloud Computing Fundamentals ⓘ | • Hackahealth Participation Certificate ⓘ | • Regional Qualified Participant World Computer Hacker League 2025 ⓘ |