

# Willian Brandão

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## Backend Developer

### SKILLS

- Technologies: Python, Flask, SQLAlchemy, PySide6, Pytest, Relational Databases (MySQL, MariaDB, PostgreSQL), Git, CI/CD with GitHub Actions, Linux, Shell scripting, KVM + virt-manager, JavaScript, Node.js, Express, Mongoose, HTML, CSS.
- Languages: Portuguese (Native), English (Fluent), Japanese (JLPT N4, Basic).

### WORK EXPERIENCE

*Freelance Software Developer at DetWill · Remote*

02/2022 - 05/2025

- Delivered 20+ projects as part of a two-person freelance team, including web apps, REST APIs, portfolios, automation, and desktop apps, coordinating client consultations over Google Meet, Zoom, and Discord.
- Cut router configuration time from 30s to 2s per device by developing a Node.js and Python automation system for telecom technicians, scaling throughput from 120 to 1,800 devices per hour.
- Built a Node.js + Mongoose chatbot prototype where students and researchers upload PDF documents, ask contextual questions, and receive referenced answers, powered by LangChain's OpenAI embeddings.

### PROJECTS

*FrostSense*

[github.com/purewave0/FrostSense](https://github.com/purewave0/FrostSense)

- Developed a real-time Flask + SQLAlchemy app for IoT cold-storage temperature monitoring, streaming multi-sensor readings and producing customisable, verifiable reports via a responsive UI.
- Implemented permission-based access control for the REST API, user management, and sensor-key authentication, with a CLI for technical tasks.

*Kaeru*

[github.com/purewave0/kaeru](https://github.com/purewave0/kaeru)

- Built a cross-platform PySide6 Japanese conjugation trainer that randomly selects verbs/adjectives and target inflections for fast, focused practice.
- Implemented a vocabulary generator that picks the most frequent words across Japanese media.

*Fortuna*

[github.com/purewave0/fortuna](https://github.com/purewave0/fortuna)

- Created a drone tuner for musicians with 7 octaves, transposition, selectable tuning systems and standards, responsive design with 3 themes, and a built-in quick-start guide.
- Deployed the app in a volunteer orchestra study group of 5 students to improve pitch accuracy and support ear training, gathering informal user feedback and iterating the UI accordingly.

*High School Arduino Robotics Team*

*Brazilian Robotics Olympiad*

- Developed the line-following and obstacle avoidance systems; team awarded the Design medal.
- Showcased the robot at a major event in the town square (over 400 visitors), presented it at 2 science fairs, and helped run 3 Arduino workshops for elementary students (~30 attendees total).

### EDUCATION

- B.S. in Software Engineering, UniCesumar · In Completion 2022 - 2025
- High School & Technical Diploma in Management, Federal Institute of Acre 2019 - 2021