

# Gabriel dos Santos Schmitz

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## EDUCATION

### Federal Technological University of Paraná

*Bachelor's Degree in Computer Engineering*

Toledo, PR

Feb. 2022 – Feb 2027

### Western Paraná State University

*Language Teaching Program - English*

Cascavel, PR

Feb 2020 – Feb 2022

### Harvard University

*CS50x: Introduction to Computer Science*

Remote - USA

Jan 2024 – Jan 2024

### Princeton University

*Algorithms, Part I & II*

Remote - USA

Mar 2024 – Apr 2024

## EXPERIENCE

### Undergraduate Research Assistant

*Federal Technological University of Paraná | Python, Flask, Dash*

Jul 2023 – Present

Toledo, PR

- Researched about post-quantum cryptography
- Developed a Goldreich–Goldwasser–Halevi (GGH) implementation
- Researched about lattice-based cryptosystems

### Junior Software Developer

*NeticShard | Go, Docker, PostgreSQL, Valkey (Redis)*

Apr 2024 – Present

Remote - LATAM

- Learned a new language (Golang) from scratch
- Developed a SaaS incident response platform for IT from the ground up
- Implemented Unit, Integration and E2E testing
- Implemented Git Flow, Github Actions, Domain Driven Development and Continuous Integration Development

### Scientific Research Grant PIBIC

*Federal Technological University of Paraná*

Sep 2024 – Sep 2025

Toledo, PR

- Research about KEMTLS and Post-Quantum TLS

## PROJECTS

### Pendulum Tracker | Python, OpenCV, Flask, Dash

Aug 2023

- Developed a full-stack web application using Flask and Dash
- Used OpenCV to access the camera and track a real pendulum movement
- Used SHM and Analytic Geometry to calculate and plot position per time and energy distribution

### Tomato.C | C, NCurses

Jul 2022 - Present

- Created a full pomodoro app using pure C and NCurses
- App has ASCII animations, vim and mouse keybinds, audio playback, notes management and scripting using app output
- Managed a medium-sized userbase (300+ stars), resolving user-reported bugs and implementing requested enhancements
- Rewriting the app from scratch to have better systems and better user expansion

### My Personal Website | HTML, CSS, JavaScript

Jan 2024 - Present

- Created a simple website to update my personal projects, resume, and portfolio

## TECHNICAL SKILLS

**Languages:** Python, C, C++, JavaScript, Rust, Java, PostgreSQL, SQLITE3, Redis, HTML, CSS, Golang

**Frameworks:** Node.js, Flask, HTMX, shadcn, Bootstrap

**Developer Tools:** Git, Docker, VSCode, PyCharm, Neovim, Linux

**Libraries:** OpenCV, pandas, NumPy, Matplotlib, Requests, Seaborn, Ncurses

## LANGUAGES

**Portuguese:** Fluent - Native Language

**English:** Advanced - Second Language