

TANIA R MACHADO SANTANA

Full Stack Developer
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Profile

Full-stack developer with 10 years of operations management experience. Completed Founders and Coders bootcamp and currently advancing through 01Founders peer-learning program where I earned 'Student of the Year' and a mentorship position. Work as a Technical Mentor teaching Python, Go, and JavaScript while building projects across the stack involving APIs, authentication, real-time systems, and Rust. Looking for a development role where I can contribute to production code and keep learning.

Security Mindset

I embed security considerations from the earliest stages of every project, consistently aligning with **Snyk** recommendations to identify and mitigate vulnerabilities before they reach production. This proactive approach ensures robust, resilient systems that protect data and maintain user trust—a discipline I apply whether working on front-end components, back-end APIs, or deployment pipelines.

Technical Skills

Languages & Automation: Python, Go, Rust, JavaScript (ES6+), TypeScript, C, Bash Scripting, Git/GitHub, Postman

Web Technology & Frameworks: React (TypeScript), Vite, SVG Charts, API Integration, HTML/CSS

Containerization & Deployment: Docker, Podman, Nginx (Configuration, Reverse Proxy), AWS, Google Cloud

DevOps/DevSecOps: Git Workflows, GitHub Actions, GraphQL (exposure)

Data & Testing: SQL (PostgreSQL/SQLite), Vitest, Unit & Integration Testing, WebSockets (Real-time data), Financial Market Data Analysis

Monitoring & Networking: Splunk, Nmap, Wireshark, Snyk CLI

Operating Systems & Command-Line: Linux (Ubuntu, Debian), macOS, grep, awk, sed, find

Project Management Tools: Jira, Linear, GitHub Projects, Trello

Career History

Coding Assistant (Technical Mentor)

Capital City College Group | 12/2023 - Present

- Mentor 50+ students through complex coding challenges in Python, Go, and JavaScript, teaching DevOps best practices including Git workflows and command-line proficiency.
- Conduct peer code reviews focused on security vulnerabilities (SQL injection, XSS) and enforce DevSecOps principles through standardised style guides.
- Develop and deliver training on secure authentication, principle of least privilege, and secure debugging practices.

Parish Administrator

St George and All Saints Tufnell Park | 05/2022 - 06/2023

- Automated financial reporting with Excel macros, reducing manual processing time by 6 hours monthly and increasing data accuracy by 15%.
- Secured this role to support myself while concurrently developing my technical skills through self-study.

Administrative Support Worker

University College London Hospitals NHS Foundation Trust | 02/2021 - 05/2022

- Played a key role in setting up the COVID vaccination centre at the Business Design Centre in Islington.
- Pinpointed workflow inefficiencies in vaccine preparation, boosting team efficiency by 15%.

Professional Experience (Continued) | 2006 - 2020

Lead Event Architect & Operational Manager

High-End Event Management and Catering | London, UK

My 10-year career in high-stakes event leadership was essentially a masterclass in real-time systems management and project execution, providing the ideal foundation for a career in engineering:

- Systems Architecture at Scale:** I managed the end-to-end operational flow for hundreds of complex events at venues like Wimbledon Tennis Court, Tottenham Hotspur Stadium, and Westminster Central Hall. This meant orchestrating FOH (client UI), BOH (database/production), and vendor logistics—a critical breakdown in any area meant failure. I specialize in designing and managing integrated systems that simply cannot fail.
- Agile and Deadline-Driven Execution:** Every event was a unique, hard-deadline project. I mastered the agile process of requirements gathering, rapid prototyping (tastings), delivery, and immediate retrospective (post-mortem), allowing me to translate abstract needs into actionable, profitable project plans.
- Real-Time Debugging Under Pressure:** When things inevitably went wrong—an equipment failure or a last-minute change—I excelled at root-cause analysis and immediate, decisive problem-solving. This background built resilience and a methodical approach to troubleshooting production issues, essential for complex codebases.
- Leadership and Clear Communication:** I recruited, trained, and led diverse event teams of up to 50 staff. Success was built on clear, concise communication and managing expectations across all stakeholders, which directly informs my ability to collaborate effectively and communicate technical decisions in a team environment.

Projects

- Gmail MCP Server:** Python-based Model Context Protocol server that lets AI assistants interact with Gmail using OAuth 2.0. Reads unread emails and creates draft replies. [GitHub](#)
Technologies: Python, Google Gmail API, OAuth 2.0, MCP
- X-PilotLab:** Node.js CLI for controlling drones via UDP. Handles takeoff, landing, movement, and rotation in real-time. Includes mission scripting for automated flight patterns. [GitHub](#)
Technologies: Node.js, JavaScript, UDP, CLI
- Chaikin Algorithm:** Rust implementation of mathematical curve-smoothing technique. Demonstrates ability to learn systems-level languages and apply complex algorithms. [GitHub](#)
Technologies: Rust
- Web Forum:** Go forum app with image uploads (JPG/PNG/GIF) and 20MB server-side validation. Deployed with Docker. [Live Demo](#)
Technologies: Go, Docker
- Groupie Tracker:** Go website that fetches and displays artist and concert data from multiple APIs. Custom client-server event handling. [Live Demo](#)
Technologies: Go, JavaScript, REST API, HTML/CSS
- GraphQL Dashboard:** Profile page with JWT auth that pulls data via GraphQL and renders stats as custom SVG charts. [Live Demo](#)
Technologies: JavaScript, GraphQL, JWT, SVG

Education & Certification

01Founders Software Development Programme - 01Edu (2023 - Present) | Project-based peer-learning program. Currently advancing Rust skills and building systems-level applications.

Founders and Coders - Software Development Bootcamp (Completed) | Earned mentorship position and 'Student of the Year' award.

CS50: Introduction to Computer Science - HarvardX (In progress - 80% completed)

BA(Hons) Business Management & Finance - Universidade Salvador

Prince2® Foundation - University of Westminster

Level 2 Certificate in the Principles of Cyber Security - NCFE

Languages

English (fluent), **Portuguese** (native), **Spanish** (conversational)

Additional Information

GitHub: github.com/Pinkish-Warrior | Project demos available upon request