Pedro Henrique Masteguin

Developer at AeroRiver | Computer Science | Electronic Technician | Embedded Systems, Software Developer, Microcontrollers, DevOps, Cybersecurity | C/C++, Bash, Rust, Python, Lua, Java, Julia, Linux, Git, Docker

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Education

Bachelor of Computer Science **Jan 2024 – Present**
UNIFESP - Universidade Federal de São Paulo

Bachelor of Science and Technology **Mar 2021 – Dec 2023**
UNIFESP - Universidade Federal de São Paulo

Integrated Electronic Technician Program (High School Level) **Jan 2017 – Dec 2020**
IFSP - Instituto Federal de Educação, Ciência e Tecnologia de São Paulo

Profile

Electronic technician at Instituto Federal de Educação, Ciência e Tecnologia de São Paulo, graduated with a Bachelor's degree in Science and Technology at Universidade Federal do Estado de São Paulo - UNIFESP, currently pursuing a Bachelor's degree in Computer Science at Universidade Federal do Estado de São Paulo - UNIFESP. Working as a Developer at AeroRiver, specializing in embedded systems programming aplied to aeronautics.

I worked as a technology freelancer offering computer assembly and repair services, preventive maintenance and other IT maintenance and support services. During my technical course, I taught math classes in an Olympics project offered by the institution. In this role, I guided students in carrying out the Olympics tests, aiming to win medals. My most recent experience is as an embedded systems programmer at AeroRiver. In terms of my technical qualifications, I am proficient in programming with C/C++, Bash, Rust and Python, where I've applied my skills to solve a variety of real-world challenges. Additionally, I am well-versed in Linux systems, electronics and embedded systems, enabling me to work in versatile computing environments.

Teamwork **Logical** **Adaptability** **Autodidact**
Organization **Proactive**

Experience

Embedded & Aeronautic Systems programmer **Mar 2023– Present**
AeroRiver *São José dos Campos*

- Development of Python, Bash scripts and C routines for reading and acquiring data from sensors
- Assembling electrical and electronic circuits
- Responsible for creating and organizing code versioning structure and agile development methodology
- Co-worker in the development of a Flight Aid System for WIG vehicle
- Configuration of Docker-based virtual development and testing environment
- Configuration of AWS EC2 and S3 instances for running StarCCM+ simulations

Freelance Computer Maintenance & Repair Service Provider **Jan 2019– Dec 2019**
Freelancer *São João da Boa Vista*

- Repair and maintenance of various operating systems
- Cleaning and basic hardware repairs
- Basic repairs and software installation on various operating systems

Mathematics Olympiad Project Instructor **Jan 2019– Dec 2019**
IFSP *São João da Boa Vista*

- Preparation and instruction of olympiad-related math classes
- Creation of assessment activities to test knowledge
- Mental preparation guidance for Mathematics Olympic

Certificates

Computer Assembler and Repairer Technician
SENAC - São Paulo

Skills

C/C++	Bash
Rust	Linux
Python	Docker
Java	Git
Lua	Arduino
Julia	2D&3D AutoCAD

Projects

SocialSTD - Rust-based automated Trello reporting project

- Project developed in Rust that utilizes Trello API to request information about user's boards, lists and cards in order to generate a report featuring the most pertinent insights.

OrganizAI - Assistant & smart scheduler

- OranizAI is a project focused on use Artificial Intelligence to improve personal organization and time management. The project was a web application of an agenda, developed with Java as Back-end language and Vue.js framework as Front-end stack.

AI-Parking - Smart Parking management system using AI

- Developed for the UNIFESP university campus, by utilizing computer vision techniques with convolutional networks using YOLOv8 model from Ultralytics, the project was developed to detect and identify vehicles in parking spaces. Using Python, the approach provides real-time monitoring and counting of available and occupied parking spots, offering a more efficient parking experience.

VPN-based Blockchain Network - Blockchain implementation using VPN approach

- Using a Hyperledger fabric blockchain and OpenVPN, this project aimed to compare time and space efficiency of implement a standard blockchain network versus one with VPN among the peers in order to assess the feasibility of adding an extra layer of security to blockchain network communication