Tiago Aleixo

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github.com/itsnova204 | linkedin.com/in/tiagosaleixo/

Curious and driven by a deep love for learning, I'm passionate about exploring how systems work and constantly seek new challenges to grow as a network and systems engineer. I am currently pursuing a Master's in Network and Information Systems Engineering and a CCNA (Cisco Certified Network Associate).

I'm especially drawn to low-level programming with C and C++, Linux systems, and network technologies like Cisco IOS and routing protocols — I love working close to the metal, building resilient and fast network infrastructures."

EDUCATION

FCUP - Faculty of Sciences, University of Porto

Master in Network and Information Systems Engineering

Relevant Coursework: Cryptography, Network Administration, Network Security, Systems Administration.

FEUP - Faculty of Engineering, University of Porto

Bachelor in Informatics and Computing Engineering

Relevant Coursework: Compilers, Computer Networks, Design of Algorithms, Distributed Systems.

WORK EXPERIENCE

Schmitt + Sohn Elevadores

Intern

Currently developing and implementing clustering, TSP, and simulated annealing algorithms as part of a full-stack application built with Angular, Java Spring Boot, and PostgreSQL.

BindTuning

Intern

Developed a system that allows potential clients to easily test the company's features through a customized trial website, automatically generated to match their existing business site.

SOFTWARE PROJECTS

Nintendo NES emulator - github.com/itsnova204/NES_Emulator-LCOM

- A software clone of the iconic first Nintendo console built entirely in C with the ability to support real NES controllers and use its own device drivers to run in Minix3.
- In this project, I was responsible for designing and implementing the complete emulator engine from reading the cartridge to pixels on the screen.
- Video Demo youtu.be/zcQ03VqHWBw.

AuctionPeer - github.com/itsnova204/auctionpear

- A fully functional deployment-ready auction website built on top of Laravel and using a PostgreSQL database.
- In this project, I was focused primarily on the design and development of the back end and real-time communications.

OwlSort - github.com/itsnova204/OwlSort-AI

- A fun game where you are tasked to sort different colored birds in their branches. With various AI algorithms to help you along the way.
- In this project, I was mainly responsible for creating the algorithm dispatcher using threads and inter-process communication and implementing heuristic search algorithms while also contributing across the entire project.

Expected: June 2026

Feb. 2025. - May 2025

Aug. 2022.

STUDENT GROUPS

IEEE UPSB - Institute of Electrical and Electronics Engineers - UP Student Branch Mar. 2025 - Ongoing **Computer Society - Member**

Currently developing a scalable server cluster and secure network infrastructure using Proxmox and Linux routing to host internal services, improving team collaboration and resource efficiency.

Nucleus of Computer Graphics and Multimedia Member

Participated in organizing events, workshops, and collaborative projects focused on enhancing students' understanding of visual computing and interactive media.

Nucleus of Computer Science

Member

Participated in organizing events, workshops, and collaborative projects focused on increasing students' excitement in computer science-related topics.

Club of Informatics

President

- Led a high school club focused on bringing students excited about computer science and electronic engineering together to create events and participate in competitions.
- 3rd Place at the national engineering competition Ilídio Pinho Foundation "Ciência na escola" award.

VOLUNTEERING

Code Children

Taught coding fundamentals to kindergarten students using visual programming tools like ScratchJr.

CERTIFICATIONS, SKILLS & INTERESTS

- **Certifications:** Currently pursuing **CCNA** (*Cisco Certified Network Associate*)
- Skills: Project Planning, Problem Solving, DevOps, C, C++, Java, Javascript, PHP, Haskell, Bash, Python, Git, Linux, Microsoft Azure, CI/CD Pipelines, Cisco IOS, Linux Routing, OSPF, VLAN, Firewalls, Networking, Angular, Java Spring Boot.
- Interests: Electronics, Automation, DIY Home Projects, Building Computers, Boxing, Gaming.
- Languages: Portuguese native, English fluent, German early learning stages.



Sep. 2023. - Oct. 2024

Mar. 2021. - Dec. 2022

April. 2016. - May. 2019

Early 2020