

ANTOINE PHAN (Hoang Tuan Phan)

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WORK EXPERIENCE

Software Developer

Dec 2023 – Current

Centre for the Study of the Sociology and Aesthetics of Music, NOVA University Lisbon | Remote

- Developing algorithms and designing web interface to perform search, cross comparison, and similarity analysis in a corpus of Portuguese Early Music chants.

Software Developer & Audio Designer

May 2023 – Sep 2023

Shared Reality Lab, McGill University | QC, Canada

- Implemented and integrated a translation microservice using large language models to the system's backend.
- Translated user interface of the web extension to French.
- Designed earcons (audio cues) for user interactions.

TECHNICAL SKILLS

- **Specialties:** Linux (Debian-based or Arch-based), Linux Server Administration, GNU tools (bash, ssh)
- **Programming:** C, C++, Python, Java, Assembly (ARMv7).
- **Software development:** Docker, Nginx, AWS EC2; GitHub Actions for CI/CD.
- **Hardware design:** Electronics circuit design (RLC, IC), multimeter, oscilloscope, function generator.
- **Embedded and FPGA:** Raspberry Pi GPIO and Arduino. Familiar with VHDL.
- **Web development:** JavaScript frameworks (SvelteKit, VueJS, ReactJS), TypeScript, expressJS, Flask, Spring Boot.
- **Design & Media:** Adobe Illustrator & Lightroom; MuseScore, SuperCollider, Ableton, LMMS.

SOFT SKILLS

- **Languages:** English (Fluent), French (Conversational), Vietnamese (Native), Spanish (Basic).
- **Interpersonal:** Effective communication in collaboration/teamwork. Able to lead a team of developers.
- **Organizational:** Attention to planning, prioritization, and team orchestration.
- **Work habits:** Attention to creative ideation and reliable design. Able to self-taught and research.

PROJECTS

Personal Cloud Server

Aug 2023 - Current

- Configured a Raspberry Pi as an accessible remote server to host cloud storage, databases, deploy full-stack applications, websites, and game servers.
- Managing firewall rules and network traffics using tools like ufw and fail2ban.

IEEE McGill Website | ieeemcgill.com

May 2023 – Current

- Designed and maintaining the student branch's website, used SvelteKit framework and TailwindCSS.

Arch Linux on ARM

Jul 2022 – Dec 2022

- Implemented an interactive terminal-based installer of Arch Linux on ARM-based computers such as Raspberry Pi

Portfolio website | antoinephan.me

Jun 2022 – Sep 2022

- Created a frontend portfolio site with ReactJS and SASS.

Course-related Projects

- **Hotel Management System** – A full-stack web application using PostgreSQL database, Spring Boot backend, VueJS and TailwindCSS frontend. Worked with MVC architecture, Agile methodology, and BDD/TDD.
- **Labyrinth game** – A game with drivers and interface written in Assembly ARMv7 and C, simulated on DE1-SoC.

EDUCATION

McGill University – Bachelor of Engineering in Electrical Engineering

Sep 2021 – Current

- Minors in Software Engineering and in Musical Science & Technology (MST)
- CGPA: 3.41/4.00