

Anh Hoang Nguyen's Resume

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Introduction

I'm a Bachelor of Computer Engineering student at Concordia University in Montreal, QC.

I actively work on modern web applications, APIs, frameworks and machine learning research projects in natural language processing. As an avid adopter of new cloud and networking technologies, I setup my home lab and cloud clusters on Linode, AWS, and manage orchestration via Ansible and k8s. My tentative endgame is to work in DevOps and SRE.

Skills

- **Programming Languages:** C, C++, C#, Python, JavaScript, HTML/CSS, TypeScript, Java.
- **Specializations:** Web app development, cross-platform with Electron, container technologies
- **Environments:** Linux, macOS, Windows and respective CLI's.
- **Tools:** Agile process, git, bash/zsh, PowerShell, vim, vscode, conda, OSINT framework.
- **Natural languages:** vi-vn (native), en-us/ca/uk (bilingual), fr-ca (B1), ja-jp (N5), de-de (casual).
- **Personal:** Professional manner, responsible, great analytical mindset, willing to learn, team player, empathetic.

Education

Bachelor of Computer Engineering with Co-op (2020 — 2024)

Concordia University, Montréal, QC.

- Relevant courses: Object-oriented Programming, Data Structures & Algorithms, Computer Organization & Software (assembly programming), Discrete Math, Technical Writing and Communications

DEC in Pure and Applied Sciences (2017 — 2020)

John Abbott College, Ste-Anne-de-Bellevue, QC.

- Relevant courses: Linear Algebra, Statistics & Probability

Professional Experience

Software Developer in SCM/DevOps — Internship (5/2022 — 9/2022)

[Genetec Inc., Saint-Laurent, QC.](#)

Physical security, access control, and federated cloud-based security center leveraging AI and ML technologies.

- Maintain and update the installation program scripts (InstallShield)
- Create an assistance library for the installation programs in C#/C++
- Maintain and update compilation scripts for the compilation servers
- Create C# extensions for the Build Team Foundation library
- Improve the team's intranet page
- Design and add functionalities for the team's intranet page (ASP .NET): list and management of builds, reports, etc.
- Develop the installation script of a tool intended for our partners (InstallShield)
- Analyze different virtualization tools allowing execution of an application in a virtual environment, without having to install it in advance
- Develop a series of automated tests to be executed after each build of an application

IT Technician L2 — Part-time (3/2021 — now)

[Academic IT Services, Concordia University.](#)

I.T. organization specialized in developing and servicing information systems for the Engineering and Computer Science school.

- Offer frontline support to the customers in terms of utilizing the IT infrastructures, services, and resources at Concordia.
- Investigate complicate issues regarding physical systems, networking, internal accounts, and access controls to resolve or to escalate to SysAdmins and NetAdmins.
- Suggest insightful improvements for service desk work processes and cross-team communications.
- Regularly check the teaching lab peripherals (i.e., computers, monitors, projectors), and troubleshoot the found issues.
- Service the walk-in customer or in labs, and answering the phone call.
- Utilize the ticketing system to offer efficient IT support.
- Work in conjunction with full-time staff to ensure the functionality of computer labs.
- Perform inventory for new purchases (computers and equipment) by the engineering faculty.
- Undertake other job-related missions assigned by the manager of User Services.

IT Support Specialist — Internship (8/2021 — 12/2021)

[Genetec Inc., Saint-Laurent, QC.](#)

- Provide technical assistance and troubleshooting for users.
- Perform infra and team workflow improvement tasks.
- Test new hardware and software compatibility in the environment.
- Manage hybrid AD and Endpoint, account credentials and permission groups.
- Deploy IT assets: hardware and software.
- Utilize PowerShell and bash scripting.
- Manage cloud VMs and KVM/Hyper-V.
- Extensive use of Jira ticketing system and contribute to internal wiki.
- Handle IT phone calls.
- Maintain asset inventory and specifications. Troubleshoot computer hardware issues.

- Manage access request according to InfoSec policies.
- Work usually encompasses OSI layers 5 to 7.

Research Assistant — Casual (1/2021 — now)

[SAC Research Group, Concordia University.](#)

Cloud architecture, system architecture, AI and ML applications research group

- My current project is to evaluate MLaaS platforms and develop an assessment framework.
- I assist in researching practical applications of machine learning and deep learning models with current focus on explainable AI (XAI).
- I replicate experiments to verify claims arising during the research of a topic.
- I gather information from research literatures and extract meaningful points to aid in the research progress of the group.
- Previously, I contributed by running and reporting NLP models for classification on non-Latin datasets, more specifically XLNet and bert.
- I also maintain and develop the group's website.

Full-Stack Developer — Contract (1/2021 — now)

[Inertial Sensing Lab, Montreal, QC.](#)

Physics research lab specializes on inertial and mechanical operations using accelerometer sensors.

- Responsible for building and maintaining the project website.
- The website is a hub for both internal and public communications, functioning as a knowledge base, blog, archive, and file repository.
- I decide and implement from the tech stacks and the UI/UX design to the web hosting, networking, security, and identity & access management.

Notable Projects

Portfolio Site – <https://hoanganh.tech>

- Built with Nextjs framework for Reactjs.
- Custom styled and themed using MUI component library.

Unix Documentations – <https://unix.hoanganh.tech>

- My opinionated copy-paste unix documentations for tools, environment configurations, and out-of-the-box-experience setups on Linux/Unix-based distributions and operating systems.
- Built with Sphinx documentation framework.
- Automatically tested and deployed to a bare metal Debian VPS using GitHub Actions.
- Routed and SSL'd through Cloudflare.

Development Blog – <https://dev.hoanganh.tech>

- A blog built with Nextjs and Tailwind CSS (hosted on Netlify with Github Actions CI) where I write about new techs, tools, and knowledge I come across through my everyday life.

- Routed and SSL'd through Cloudflare.

Data Object Parse and Meaningful Graph Traversal – <https://github.com/aaanh/meaningful-graph-traversal.git>

- Final project for 2nd level OOP course.
- Clean the Panama Papers .csv dataset using Python notebook and pandas.
- Parse the cleaned dataset using C++ into graphs and nodes.
- Output connections between nodes using BFS traversal.

Imaginary Homepage for ConUHacks VI – <https://halcyon.hoanganh.dev>

Front-End Developer and Web Challenge Creator

- Disclaimer: I am no longer affiliated with ConUHacks or HackConcordia.
- This project never saw the light of day due to sudden cancellations.
- Almost 2 months of work and improvements went out the window.
- Built using Next.js, MUI components and custom styling.
- Embedded with my own CTF-like web challenge (later stages not available because I shut down my development servers).