

David Chen

416-879-7536 | davyh.chen@mail.utoronto.ca | [linkedin.com/in/dayuhechen](https://www.linkedin.com/in/dayuhechen) | www.yoshixi.net

Work Experience

DevOps Intern

Mar. 2023 - Jun 2023

Pathway Communications

Toronto, ON

- **Scripted and setup daemons** for reviewing expired certificates, old passwords and unused ports. Has been used to monitor and update 110+ local firewalls and routers.
- **Integrated Elastic EDR into company ecosystem** using EC2 cloud servers with production-equivalent environments to test run its endpoint defense & analysis capabilities.

Computer Science Robotics Instructor

Aug 2022 - Sep 2023

RoboEDU

Toronto, ON

- **Taught Python, C, Lua and Robotics** through inquiry-first tutorials to 30+ students. Established tests for engineering quality and stability as well as routine code reviews.
- **Developed Neural Network and Computer Vision projects:** Guiding 5 students through the process of developing with Tensorflow, Sklearn and OpenCV for real-world applications.

Extracurriculars and Projects

CTF Team Captain BLIGHT BABIES CTF | *Reverse Engineering, Web*

Dec 2023 - Present

- **Ranked 3rd in Canada** attending 30+ biweekly CTF events - ctftime.org/team/280084
- **Wrote a general reference for reversing** ELF, PE, Android, Golang, Python. Effective for solving 15+ challenges thus far.
- **Taught high level reverse engineering** techniques in deobfuscation, symbolic execution, malware behavior and compiler fundamentals to new members.

Research Lead Epidemic Research Group | *ML, Data Mining*

Dec 2024 - July 2025

- **Winner of Research Bunny 2025 Grant**
- **Fitted and Fine-tuned XGBoost** classifier retrained with Optuna, Holt-Winters encoding and 7-day lag to achieve a 90% capture of variance.
- **Filtered features by using Exploratory Data Analysis** in univariate and bivariate analysis to cancel out redundant or skewed variables from public sources.

PuzzleQL | *PostgreSQL, ReactJS, FastAPI*

HackThe6ix 2025

- **Developed web-based SQL transpiler** using a block-based scratch-like design for converting visual code into raw SQL queries. Done by implementing a BNF grammar to allow for recursive descent parsing into node structures.
- **Provided SQL interfaces in FastAPI** designed to sanitize and forward CRUD requests to user-owned Postgres databases.

Proxmox Homelab | *Proxmox, LXC, Docker, Kubernetes*

Personal

- **Hardened homelab security** through microservice containerization, restricting open services via reverse proxy, strict firewall policies and setting up a internal VPN.
- **Implemented CI/CD** through github actions runners monitoring live code and network changes, to modify DNS records and to publish site changes.

Education/Certifications

Honors Bachelor of Computer Science & Statistics

Sep. 2024 - Jun 2029

University of Toronto

Toronto, ON

CompTIA A+, CompTIA Security+

Obtained Aug 2024, 2025

Technical Skills

Languages: Rust, Golang, Javascript, Python, C, C++, Lisp, Java, SQL, Ruby, Lua, Nix, Solidity, Bash, Powershell, x86, ARM

Libraries: ReactJS, ExpressJS, Flask, Streamlit, 3JS, pandas, Tensorflow, BeautifulSoup, FastAPI

Dev Tools: Docker, AWS, Git, Linux, QEMU, Visual Studio, Vim, Nginx, Langchain