

Nathan Hung 4th year CompE

Email: nathan.hung@mail.utoronto.ca
GitHub: github.com/Nathan903
Location: Toronto / remote / relocation

Technical skills: pytorch, numpy, sktime, automation scripting, continuous integration, data visualization, Unreal Engine C++, reinforcement learning frameworks, Git, unit testing, regex, AWS, ROS2

Strengths: adaptability, self-learning, emergency situation handling, focused problem solving, bargaining, ~~bullshit detection~~

EDUCATION

2021-2026 **BASc., Computer Engineering + PEY Co-op | UNIVERSITY OF TORONTO**

- cGPA: **3.92**; Course average: 91.4
- Edward S. Rogers Sr. Top Student Award (3rd highest GPA).
- Relevant courses: Algorithms and Data Structures, Computer Organization, Operating System, Fundamentals of Deep Learning, Natural Language Computing, Systems Programming

RELEVANT EXPERIENCES

2024 - 2025 **Software development R&D intern | AMD (Markham, Ontario)**

- Trained AI characters in Unreal Engine using the [Schola](#) reinforcement learning framework
- Researched and integrated new algorithms into [Schola](#), and enabled it on Linux & AMD GPU
- Authored tutorials and documentation for RL beginners

2023 summer **ROS2 developer & researcher | Toronto Robotics and AI Laboratory @ UofT**

- Implemented lidar-camera fusion human detection software into ROS2 stack
- Integrated YOLOv7 computer vision model into existing ROS2 stack

2023 summer **Teaching Assistant | C-MORE lab @ University of Toronto Dept. of Industrial Engineering**

- Co-authored teaching material & quizzes on ML models (random forest, RNN, PCA, CNN, etc)
- Gave lectures on deep learning methods to ESL students

2022 summer **Python developer & researcher | University of Toronto Department of Industrial Engineering**

- Researched and improved an AI program to guide firefighters in freight fire mitigation strategies
- Integrated machine learning classifiers to predict hazards from chemical-based time-series data
- Designed and developed a Python GUI desktop app
- Received MIE Summer Research Award (7500 CAD)

OTHER EXPERIENCES

2023 - 2024 **Teaching Assistant - ECE244 (Programming Fundamentals) | University Of Toronto**

- Re-designed lab assignments to show realistic use cases of OOP using terminal games
- Automated exam grading comment generation to help student understand their mistakes

2023 - 2023 **Web Developer | University of Toronto Engineering Society**

- Build faculty website, using React and HTML/CSS/JS (courses.skule.ca)

2021 - present **Coding Instructor | Geek Education**

- Prepare students for various coding competitions in Python, Java, and HTML5
- Successfully taught hamming code to a 12yo and recursion to a 10yo (while keeping them interested)

Programming languages

- Fluent: Python, C, C++
- Proficient: Java, Javascript, Verilog, ARM assembly
- Familiar: YAML, Bash script, MATLAB

Awards:

- AMD Copilot Code-Scanning Hackathon 1st place (2024)
- ECE297 Traveling Courier Algorithm Competition 2nd place (2023)
- WISE×Qualcomm Engineering Case Competition 1st place (2022)
- UTEK Consulting Competition 2nd place (2022)
- Tencent Spark AI program Semi-finalist (2020)

Authorized to work in: USA, Canada, Taiwan, Mainland China