

# Nathan Hung

1200+ hours of teaching experience

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## EDUCATION

- 2021-2026      BAsc., Electrical & Computer Engineering + PEY Co-op | UNIVERSITY OF TORONTO
- cGPA: **3.92**; Edward S. Rogers Sr. Top Student Award (3rd top student)
  - Relevant courses: Algorithms and Data Structures, Software Communication and Design, Digital Systems, Computer Organization, Operating System, Fundamentals of Deep Learning
  - **98** in ECE244. Was **TA for 2 terms**, and **designed the 2024 lab assignments**.
  - **98** in ECE344 (winter). Highest score in class. **Verbally invited to be TA** by professor Ding
  - **100** in ECE302. Solid understanding, Perfect score in all midterms and exams.
  - **93** in ECE297. 2nd place out of ~100 teams in TSP algorithm design

## RELEVANT EXPERIENCES

- 2024 - 2026      Lab Teaching Assistant - ESC180 (Introduction to Programming) | University Of Toronto
- Taught first year students in lab sessions
- 2024 Summer      Material Design Teaching Assistant - ECE244 (Programming Fundamentals) | University Of Toronto
- **Re-designed 2 lab assignment** to show realistic use cases of OOP and dynamic arrays
  - Develops video tutorials to help students on lab assignments
- 2023 Fall      Lab Teaching Assistant - ECE244 (Programming Fundamentals) | University Of Toronto
- Top TA contributor (**496 contributions**) on **Piazza**
  - Worked beyond 60 hours, **answering questions 9am - 3am**, when other TA fails to answer on time
  - Automated exam grading comment generation to help student understand their mistakes
  - Explained linked list w/ Easter Egg hunt analogy [nathanh.pages.dev/share/cpp/linkedlist/](https://nathanh.pages.dev/share/cpp/linkedlist/)
- 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)
  - Taught **ESL international students** during lab session
- 2021 - present      Coding Instructor | Geek Education
- Works for minimum wage (even during exam seasons) because I love teaching
  - Prepare students for various coding competitions in Python, Java, and HTML5
  - Successfully taught **hamming code** to a 12yo using *Swiper vs Dora on the phone*
  - Successfully taught **trie & hashmap** to a 11yo using **bigram and trigram language models**
  - Successfully taught **recursion** to a 10yo with **Koch snowflake art & rabbit reproduction**
  - Successfully taught **OOP (js)** to 12yo with **2D ball simulation w/ gravity & collision**.

## Programming languages

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

## Awards:

- UTRA Hacks Autonomous Vehicle Competiton 3rd 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)

**Technical skills:** keras, sktime, numpy, pandas, tensorflow, automation scripting, continuous integration, data visualization, algorithms, data structures, Git, GTK, Modelsim, unit testing, regex, AWS, ROS2,