

# Adrian Chow

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## EDUCATION

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University of Toronto, *B.A.Sc., Computer Engineering*

Sept 2019 - June 2024

- **Awards:** Edward S. Rogers Department of Electrical and Computer Engineering – Top Applicant, Dean's Honor List

## SKILLS

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- **Programming:** C++, C, ARM Assembly, CSS, HTML, Javascript, Python, JSON, Verilog (HDL)
  - **Technologies:** Git, Gitlab, Windbg, Confluence, JIRA, Perforce, Intel Quartus Prime, Modelsim, LTSpice, MATLAB, JOSM, PC Building
  - **Languages:** Fluent in English and French, Cantonese

## EXPERIENCE

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Advanced Micro Devices

Markham, ON

*Windows Graphics Driver Developer*

*May 2022 - Aug 2023*

- Contributed to the successful integration of **Windows OS version 22621**, collaborating with cross-functional teams, and supported the implementation of **RDNA 3 series dGPUs** and **APUs** in **C++**
- Demonstrated **strong problem-solving** skills in a **scrum** environment, proactively addressing and resolving more than **95 JIRA defects** and tasks using **C++**.
- Enhanced **driver stability** by identifying and resolving **engine and v-sync timeouts** through thorough debugging efforts in **C++**
- Pioneered the development of a cutting-edge **interface** for future iterations of **Smart Access Graphics**, laying the groundwork for advanced graphics capabilities in **C++**
- Actively participated in over **90 code reviews on GitHub**, both as a **reviewer** and a **reviewee**, to maintain **code consistency** and elevate overall **code quality**
- Leveraged **Windows Development Kits (WDK)** and **Windows Software Development Kits (SDK)** to **construct and validate** graphics drivers, ensuring robust **performance** and **reliability**

aUToronto

Toronto, ON

*Mapping Engineer*

*Aug 2021 - May 2022*

- Developing Semantic and HD maps for various outdoor environments to produce navigation for an autonomous car
- Developing **automated** map conversion pipeline in **Python** to convert mapping data from **XML** formatting to **OSM** formatting

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## PROJECTS

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### Project HAEste

Jan 2021 - April 2021

- Created graphical map interface using **C++** and **OpenStreetMap API**
- Implemented **Dijkstra's** and **A\* Algorithms** to solve the **Traveling Salesman Problem**
- Designed and implemented front end interface using **Glade Interface Designer** and **Gtk Toolkits**
- Used **Git** in an agile team environment for version control

### Ballads of Breeze Genshin Impact Event Remake

April 2021

- Created animated 2D rhythm game in **C** using **CPULator** running on **ARM Cortex A9** processor
- Managed and handled **interrupts** generated by different hardware components like **keyboards**, **private timers**, and **audio buffers** by using **interrupt service routines**
- Presented a working [demo](#) of the game

### Threads Library

April 2021

- Designed and developed a custom threads library from scratch in **C** that focused on key aspects of **multithreading** including **context switching**, **mutexes**, **signaling**, and **synchronization**
- Implemented efficient **context switching mechanisms** to enable **seamless thread execution**, **minimizing overhead**, and **optimizing system resource utilization**

### Text-Conferencing Program

April 2021

- Designed and implemented a text-conferencing program in **C** that allows **clients** to connect to a **host server** that requires **login authentication**. Clients are able to create **chat rooms** and chat with other **clients**
- Implemented **private messaging** and **new account creation** that is stored in a local **database**

## AWARDS/ACHIEVEMENTS

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### Advanced Micro Devices - Base Graphics Recognition

May 2023

- Major role played to help debug multiple critical issues and help a feature achieve its milestone by the set deadline

### Advanced Micro Devices - Spotlight Award

December 2022

- One of the top student contributors in the KMD team's BugBuster challenge

### Advanced Micro Devices - Base Graphics Recognition

December 2022

- Recognition received for helping drive to a high priority gating issue to closure by providing a well thought analyzed and tested solution within a limited time frame