

THOMAS HART

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SKILLS

PROGRAMMING LANGUAGES: Python, Java, C/C++

TOOLS: Git, GitHub, VS Code, Android Studio

LANGUAGES: English, French

EXPERIENCE

Autonomous Vehicle Android Developer

Ford Motor Company · Remote

- Built Android applications using Java for the in-vehicle infotainment system
- Leveraged hidden AOSP classes with minimal documentation to allow for a key feature to be implemented
- Followed proper development practices to write clean and efficient code and documentation

Computer Science Peer Tutor

Sir Winston Churchill Secondary School · Feb. 2021 to Apr. 2021 · Vancouver, BC

- Helped four classes of 15 students create and debug a variety of programs using basic Python
- Acted as a leader and gave suggestions on how students could improve their programs
- Exhibited great attention to detail by grading student's assignments based on a strict set of criteria

Outside Services

Blue Ocean Golf Club · July 2021 to Aug. 2021 · Sechelt, BC

- Cleaned an average of 50 golf carts per day to ensure golfers had an enjoyable experience
- Picked up hundreds of golf balls on the driving range to maintain a steady supply for 20 practice stalls
- Displayed excellent communication skills by greeting golfers to the course and answering their questions

PROJECTS

Arduino LED Matrix Snake Game (C, Python)

- Used an Arduino and LED matrix to create the game "Snake"
- Created a Python script to listen for click input from computer keyboard and send it to the Arduino
- Optimized the program to run efficiently, which allows for the LED matrix to function correctly

Number Converter App

- Used Java to create an Android application to allow users to quickly convert numbers between different number systems
- Implemented Functionality to convert between the 4 most commonly used number systems

Crypto Terminal (Python)

- Created a command line application using Python to easily check various statistics related to cryptocurrency
- Used the Coin Gecko API to check current prices for the top 1000 cryptocurrencies by market cap
- Worked with the mechanize and BeautifulSoup4 libraries to scrape Miner Stat for profitability of cryptocurrency mining hardware

Discord Game Bot (Python)

- Worked in a team of 4 to create a Discord bot with the discord.py library that allowed users to play 3 different mini games
- Implemented Rock-Paper-Scissors, Tic-Tac-Toe and Battleships games with the ability to play them all simultaneously
- Managed strict time deadlines to complete the entire project within a 36 hour time period for a hackathon submission

Mini Golf Game (Java)

- Learned how to use the LibGDX framework to create a mini golf video game for a school capstone project
- Created several different holes and designed the program in a way that allows for easy scalability and creation of new holes
- Implemented realistic physics with friction to slow down the ball and conservation of momentum for collisions with walls

EDUCATION

University of Waterloo · Sept. 2021 to Apr. 2026

Candidate for Bachelor of Applied Science in Computer Engineering