

Thomas Armena

McMaster University (Hamilton, Canada)
Software Engineering Bachelor's Degree (2016 - 2021)

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Work Experience

- **Contract Full Stack Developer** - University of Toronto (Sep 2018 - Sep 2019)
 - Developed an interactive learning website for a first year anatomy course
 - Designed a **RESTful API** that handles student authentication and progress in **Golang** and using **MongoDB**
 - Created various exercises in **React** such as drawing ligaments on **3D models**, drag and drop choices, etc
 - Implemented **scalable** state management for the frontend using **redux**
- **Software Developer (Co-op)** - Canadian Imperial Bank of Commerce (Jan-Aug 2019)
 - Created a system of biometric camera's that collects and stores facial data into a **MySQL database** and can be controlled remotely (**raspberry pis** and **amazon web services**)
 - Worked with one other co-op to prototype a smart device station that allows you to connect and use peripheral devices (printers, scanners, card readers) via bluetooth proximity and secured wireless connection (**node** and **electron**)
 - * Demoed this project to stakeholders which included VPs and seniors of a few departments
 - * Held meetings to handoff knowledge of the architecture and code to the engineers that will bring the project into production
 - Worked in a team of 5 to develop a digital kiosk assistant for future banking centres
 - * Created the "hearing" capabilities of the AI, leveraging mic arrays attached to a raspberry pi to capture audio and convert it to text using various AWS APIs
 - * Contributed to the high-level design architecture of the **deep learning model** used for the AI, experimented with **recurrent neural networks** to see how they could be used to leverage contextual information to make decisions
- **Application Developer (Co-op)** - Canadian Imperial Bank of Commerce (Sep-Dec 2018)
 - Automated banking processes in a z/OS system using REXX and JCL
- **Innovation Engineer and QA Automation (Co-op)** - World Vision Canada (May-Aug 2018)
 - Created a **hand gesture** controlled minigame alongside 2 other developers in **Unity (C sharp)** using LEAP (hand motion detector) in order promote an upcoming Netflix documentary
 - The project was showcased in cineplex on the big screen during the launch of the documentary
 - Created a web scraper in **python** and selenium in order to introduce integration tests into the CI/CD pipeline

Side Projects

- **Chess Dash** - A mobile arcade puzzle game inspired by Chess (available on the Google Playstore)
 - Designed an algorithm which creates unlimited randomly-generated puzzles (**Dart**)
 - Created a responsive mobile UI using Google's **Flutter** UI kit
- **Postra** - A web application for making digital collages and sharing them online
 - Built an online editor in **React** that lets you perform vector transformation on images and text
 - Created a backend service to store images and collage layouts, aswell as handle user authentication (**node, express, mongo**)
- **Chaos** - 1st place submission for a game programming competition (Rogue-like top down shooter)
 - Worked in a team of four to brainstorm ideas, design, develop, and debug the game
 - Implemented the **movement mechanics, equipment system, and random level generation** (Game Maker Studio 2)
 - Pitched game to judges alongside my team in Sheridan College, which included Computer Science instructors
- **Finstagram** - Top 5 project submission at a CIBC Hackathon
 - Created a mobile web app in **React** with a live feed of financial advice
 - Leveraged open banking APIs to obtain transactional data to base advice off of
 - Placed top 5 out of 25 teams
- **Git Plant** - Your own linux terminal plant that grows as long as you stay active on Github
 - Used a **fractal algorithm** to create randomly generated plants (**C++**)
 - Rendered the plant in the terminal only using ASCII characters

Involvement

- **Student Council** - Minister of Social Events (Sep 2015 - June 2016)
- **High School Computer Club** - Member (Sep 2015 - June 2016)
- **Asian Student Society at McMaster University** - Representative (Sep 2017 - May 2018)
- **Delta Hacks (Hackathon at McMaster University)** - Participant (Sep 2017)
- **CIBC Hackathon** - Participant (Dec 2018)
- **CIBC Tech Co-op Social Commitee** - Representative (Sep 2018 - Dec 2018)