MICHAEL KWOK

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EDUCATION

BSc. Computer Engineering
University of Alberta

📅 September 2017 – May 2022 📍 Edmonton, AB, Canada

WORK EXPERIENCE

Contract App Developer
AdMore Lighting Inc

📅 4 August 2020 – 31 December 2020

› Develop a mobile app as an independent contractor, working closely with full time firmware developer.

› Improve existing app's performance and maintainability.

› Polish app enough to get released on mobile app stores.

› Structure app to allow for automated testing with an external hardware jig in the future.

› Fixed over 400 linter warnings, closed over 40 issues.

› **Technologies:** Dart, Flutter, Firebase, Protobuf, Bluetooth Low Energy

PROJECTS

Rustracer

📅 15 Aug 2020 – 16 Aug 2020 ⬛ n30phyte/rustracer

› A simple raytracer written in Rust completed mostly within 24 hours with small optimizations over the following week.

› Got to grips with using Rust for general programming, Rayon for multithreading and AMD uProf for profiling.

› **Technologies:** Rust, Rayon

BudgetPacman (Hackathon Project)

📅 19 Jan 2020 ⬛ loravocado/BudgetPacman

› A project for HackED 2020 with the goal of making a version of tag that used a phone and GPS locations.

› Implemented a server using Socket.io and Typescript, learning both technologies overnight.

› **Won:** Best Use of Google Cloud Platform APIs.

› **Technologies:** React Native, Typescript, JavaScript

AI Pong (Hackathon Project)

📅 28 November 2018 ⬛ n30phyte/HackEDBeta2018

› Written during HackED Beta 2018, a hackathon hosted by the University of Alberta Computer Engineering Club.

› First non-toy program in C++, using SFML to write a Pong clone to be controlled by a Python AI agent.

› **Technologies:** C++, SFML, Python, Keras, TensorFlow

TECHNOLOGIES & PROGRAMMING LANGUAGES

Proficient

Python | Git | Java | C# | LaTeX | CMake | Dart | C++ | C | CUDA

Familiar

SQL | Rust | JavaScript | VHDL | React | SFML | MongoDB | Firebase | Ghidra

EXTRA-CURRICULARS

VP Finance
Indonesian Students' Association Edmonton
PERMIKA Edmonton

📅 January 2019 – December 2020

› Revived the group after 2 years of inactivity due to lack of manpower.

› Increased our revenue by 800 dollars within a year.

› This funding allowed our group to hold more events, increasing engagement from 5 to 6 people per event to more than 20.

Software Team Member
Autonomous Robotic Vehicle Project

📅 May 2018 – December 2019

› Reduce wasted time by writing scripts that help automate repetitive tasks, interfacing with Google App APIs, GitHub's API and simulation scripts for ROS in C++ and Python.

› Improved test coverage for robot's control systems by writing Google Test unit tests in C++.

› Updated technology stack, improving build times and opening access to updated CUDA libraries, increasing performance by 5 times.