Yuet Ming Leung

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Education

Cornell University - College of Arts and Sciences — Expected May 2022

- Candidate for B.A. in Computer Science — 4.0 GPA

Diocesan Boys' School - International Baccalaureate Diploma Program — May 2018

- Graduated with Billingual IB Diploma
- Courses

  Higher Level: Physics, Chemistry, Mathematics

  Standard Level: Economics, Chinese Literature, English Language and Literature

Experience

Cornell University Autonomous Underwater Vehicle

Software Co-Lead
Aug 2019 — Current

Software Member
Oct 2018 — Aug 2019

- Created vision modules for the underwater vehicle using OpenCV
- Programmed autonomous missions for the vehicle using a custom mission system
- Created a new automated testing software for vision modules
- Finalist in AUVSI's 2019 RoboSub competition, where the vehicles autonously completed gate navigation, pinger tracking and buoy ramming tasks

Diocesan Boys' School Design and Technology Engineering Team

Programming Lead
Dec 2016 — May 2018

- Collaborated with a team of around 10 people
- Oversaw the software components of engineering projects
- Designed an automated liquid cooling system for a self cooling smart glass
- First place in HKUST's Paper Tower Challenge

Cornell Computing and Information Science: Introduction to Computing Using Python

Consultant
August 2019 — Current

- Teach two labs per week and hold additional consultant office hours
- Grade assignments, preliminary exams and finals

Projects

tigerc - tiger programming language compiler — jun 2018 — aug 2018

- compiles high-level tiger language down to x86–64 assembly using rust
- performs type-checking, ir translation, naive register allocation, etc.
- applies macro-based metaprogramming for test boilerplate generation

paxos - paxos distributed consensus protocol — nov 2018 — dec 2018

- implements a generic replicated state machine library backed by multi-paxos
- verifies correctness with a json dsl-based test harness and extensive logging
- includes an example chatroom state machine with runnable server and client

gnocchi - basic procedurally generated world — nov 2018 — dec 2018

- renders with fog of war and directional shading using javascript and webgl
- supports multiple concurrent players using a client-server architecture
- optimizes performance with chunking, bitflags, and occlusion culling

Skills

- **languages:** python, java, C#
- **software:** OpenCV, git, latex, bash, unix, vim, docker, flask