

Kinsey Pak Yin Ho

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EDUCATION

NORTHWESTERN UNIVERSITY

Evanston, Illinois, U.S.A.

B.S. in *Computer Engineering*, M.S. in *Computer Science*

Expected Graduation: June 2023

- GPA: 3.74/4.00 | Dean's List (with High Honors)
- Co-founder, President: *Hong Kong Student Association, Badminton Club*
- Teaching Assistant: CS213 - Introduction to Computer Systems (C, x86)

WORK EXPERIENCE

GOOGLE LLC

Sunnyvale, California, United States

Software Engineering Intern – Linux Kernel Memory Management

June 2022 – September 2022

- Designed and developed new page promotion feature for tiered memory architecture, modifying Google's Linux Prodkernel, implementing a new BPF program, and revising a user-space daemon
- Evaluated effectiveness of page promotion feature by running synthetic workload tests to measure performance and overhead, and compared analysis results against Google's current memory architecture
- Hosted hour-long seminar with 40+ Googlers to discuss feature background, design choices, and test result analysis

APPLIED SCIENCE AND TECHNOLOGY RESEARCH INSTITUTE

Science and Technology Park, Hong Kong

Software Engineering Intern

June 2021 – August 2021

- Developed two Python Gunicorn API servers with Anaconda in Docker and deployed with Kubernetes, which process JSON data from the client's databases and use TensorFlow to analyse images and videos
- Tested the effect of parallelization optimization techniques on API calls to WSGI servers, improving the performance of the AI Tensorflow API server by 30%
- Designed and integrated frontend webpages with social media platforms for large-scale usage, using processed data to automatically generate suggestions for the webapp's users, leading to approval by the client for use (Vue.js)

STEMHUB HOLDINGS LTD.

Science And Technology Park, Hong Kong

Software Developer Intern

February 2021 – April 2021

- Implemented a Team Inbox WhatsApp messenger using ASP.NET and Microsoft SQL Server, creating multiple RESTful API services and integrating with Socket.IO for real-time message updates
- Improved backend of online live teaching platform with real-time updates using web sockets in C#, resulting in 10% faster loading times and kickstarting the deployment of alpha testing

SOURCING SOLUTIONS INTERNATIONAL LTD.

Kwun Tong, Hong Kong

Research Intern

July 2020 – September 2020

- Built industrial robot capable of semi-autonomous movement and RFID scanning with Jetson Nano, using the ROS framework and implemented SLAM, Visual Odometry, and Extended Kalman Filter
- Created C++ program using OpenCV for real-time video to quality check parts produced from industrial machines

PROJECTS

Badminton Scores (<https://www.badminton-scores.com>)

Designed a webapp for live professional international badminton scores (React & Express.js) hosted on AWS EC2

SETI (Search for ExtraTerrestrial Intelligence):

Collaborated in a team project to explore techniques to increase CPU processing capability for search for extraterrestrial signals

SKILLS & AWARDS

Programming: C | C++ | MatLab | Java | JS (Angular, TypeScript) | Python

Tools: Linux | Docker | Git | Mercurial

Awards: University of Waterloo Sir Isaac Newton Physics Award, 58th Place of about 2000 participants
High School Mathematical Contest in Modeling – Meritorious