Peter Yuen

Year 2 EEE Undergraduate Student

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A motivated individual who excels in academics, industrial experience and volunteer work. Always keen to explore and integrate different fields of engineering and technologies.

Work History

2020-09 - Current System Architecture Intern

Huawei International Pte Ltd, Singapore

- Developed RISC-V full system linux simulation on gem5 simulator.
- Device models for CLINT and PLIC interrupt controllers, RTC and VirtIOMMIO
- Supports automatic generation of devicetree from configurations
- Supports checkpointing and restoration of simulation
- Port of PARSEC 3.0 benchmark for gem5 RISC-V

2020-09 - 2020-11 Student Researcher

NTU Satellite Research Center, Singapore

- Developed a CubeSat RTOS system to interface with peripherals and perform data collection
- Performing thermal-vacuum testing for the CubeSat

2020-06 - 2020-08 Quantitative Trading Intern

Jane Street Holding LLC, Hong Kong

• A 12-week internship program involving lectures, mock trading exercises and hands-on quantitative trading study projects.

2020-01 - 2020-05 Algorithm Research Intern

Sensetime, Singapore

- Developed computer vision algorithm (CUDA, C++) to detect occlusion of casino chips
- Developed a machine learning model (Distributed Pytorch) to automatically count chips

2019-09 - 2020-05 Researcher

Undergraduate Research Programme, Singapore

Hardware Acceleration of Federated Learning using FPGA

• Investigate the potential of FPGA in acceleration the training, encryption and inference speed of federated learning clients

Lab-on-a-disc with Wireless Power Transfer

Designed a wireless power transfer system for a lab-on-a-disc system

2019-07 - 2019-08 Hardware Engineering Intern

JPT Opto-Electronics Co., Ltd, Shenzhen

 Designed and implemented high-speed DDR2 RAM controller interface on Altera Cyclone IV FPGA using Verilog HDL

2019-02 - 2019-06 Research Assistant

NTU Temasek Labs, Singapore

Created an interactive dashboard using ReactJS to present cybersecurity-related data

2018-10 - 2019-01 Research Assistant

NTU ROSE Lab, Singapore

 Developed cross-platform app with Flutter and Tensorflow Lite to measure machine learning model performances on mobile phones

2018-04 - 2018-06 Software Engineering Intern

Tink Labs, Hong Kong

- Developed a full AWS backend architecture to connect mobile phones with hotel systems to offer features like room control and express checkout
- Launched production-ready system with automated CI, testing and documentation within 3 months

2018-01 - 2018-03 Product Design Intern

Tinkertanker, Singapore

Designed and developed a DIY electronics kit which allows students to draw sand drawings with a
joystick

2017-08 - 2018-02 Software Developer

GridSynergy, Singapore

 Developed an e-Learning course on Money Laundering for Nanyang Technological University using Articulate Storyline 3 and vanilla Javascript

Education

2018-08 - 2022-05 Bachelor of Engineering: Electrical And Electronic Engineering

Nanyang Technological University - Singapore

GPA: 4.97 / 5.00 Student Activities:

- Deputy President, Garage@EEE (student-run makerspace)
- Vice President (Projects), Machine Learning and Data Analytics Society
- Member, EEE SENIORS (peer tutoring group)

Awards:

- 2019,2020: Dean's List (NTU EEE)
- 2018: Nanyang Scholarship, EEE Chair Award

Projects

STARCHAT DSE (Exam Resources App)

2016 | Android, iOS (Published) | 13,000+ downloads

PARTY BIG2 (Poker App)

2016 | Android, iOS (Removed) | 10,000+ downloads

LIVING WATER (Bible Search Engine)

2017 | Android, iOS (Beta)

FOODIE STALKER (Foodie Recommendations Search Engine)

2018 | In Progress

Volunteer Work

Director, Homeless Hearts of Singapore Ltd.

- Recruitment and management of 200+ volunteers
- Conducts bi-weekly homeless outreaches and festival events
- Work with government agencies regularly
- Expand network of partners and donors
- Facilitated the introduction of Safe Sound Sleeping Places (S3P) around Singapore

Accomplishments

- 2015: International Physics Olympiad Silver Medal
- 2015: Asian Physics Olympiad Gold Medal
- 2015: Top in Cohort, Mathematics (Raffles Institution)