

SUWEI YANG

SOFTWARE/FIRMWARE

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Military obligation: finished

Website: <https://suweiyang0106.github.io/>

Experiences

Work

University of Utah
School of Computing
Title: Graduate Research

08.2023-present
Deep learning on Partial Differential Equations (PDE)
● Fractional Fourier Transform on PDE

Silicon Motion Inc.
Title: SSD firmware engineer

05.2020-11.2022
Participated product and project:
A. **Kingston NV2 (PCIe)** B. **SM2259XT3 verification** C. **Crucial BX500 (SATA)**
● Program/Erase fails verification -A
● Read/Raid/Debug flow presentation -A
● RAID/MPISP (boot code) implementation and verification on FPGA -B
● Turbo RAID implementation and verification -C
(rescue retention data up to **6 planes**)
● RDT maintenance and development (verify NAND quality) -C

Published papers

Conference: 2020 ACM/SIGAPP
Symposium On-Applied Computing
1st author

09.2017-08.2019
Topic: GPU Swap-aware Scheduler virtual memory management for GPU applications (Master thesis)
● Improve **16%** performance in real case

Journal: IEEE System Journal
3st author

Topic: Energy-Efficient Task Offloading for Time-sensitive Application in Fog Computing
● Experiments and debug.

Teaching Assistant

Department of Electrical
Engineering, NTUST

03.2018-06.2018
Subject: Embedded System software design
● Design, assess, and grade students' exams and projects.

Contest

OPEN DATA innovated application
contest: **Top 10%**

03.2017-06.2017
LINE robot for detecting fake news (Topic: 詐騙奧特)
● Mandarin segmentation, dictionary building, and similarity function

Internship

Company: Action

09.2016-01.2017
● APP design (account system, connection between APP and SQL)

Bachelor thesis

09.2016-01.2017
● APP design (build Server, APP and communication between them)

Education

Master Degree

University of Utah
School of computing

01.2023-12.2024
Computer science

National Taiwan University of
Science and Technology

09.2017-03.2020
Electrical engineering - integrated circuits and systems
Exchange student (1 semester)-RWTH Aachen University (Germany)

Bachelor Degree

National Taiwan University of
Science and Technology

09.2013-06.2017
Electrical engineering

Skills

Software
Subjects

C (3-4 years), Python (1-2 years)
Real-time operating system, Advanced operating system,
Probabilistic machine learning, Computer architecture

Tools

GDB, Logic analyzer, UART, JTAG, VS code(for python)