Yun-Yi(Ian) Lin

Email: yul059@ucsd.edu Phone: (619) 559-2370 LinkedIn: https://www.linkedin.com/in/yun-yi-lin/

Apply for Software Engineering Intern - Summer 2021

Education

University of California San Diego (UCSD)   Sep 2020 - Dec 2021 (Expected)
Master of Science in Computer Science   *San Diego, California*
 · GPA : 3.9 / 4.0
 · Relevant coursework: **Network Systems**, **Web Mining and Recommender Systems, Deep Learning**, **Database System Implementation**

National Tsing Hua University (NTHU)   Sep 2015 - Jun 2019
Bachelor of Science in Electrical Engineering   *Hsinchu, Taiwan*
 · GPA : 4.08 / 4.3
 · Relevant coursework: **Algorithm, Data Structure, Computer Network, Operating System**, **Computer Vision**, Computer Architecture, Probability, Digital System Design, Discrete Mathematics

Experiences

Academia Sinica   Feb 2020- Jun 2020
Research Assistant   *Taipei, Taiwan*
 · Researched intermittent computing on embedded devices with frequent power failures.
 · Focused on deep learning models operating on intermittent system with fast speed and low power

Intel Corporation, Non-Volatile Memory Solutions Group   Dec 2018 - Jun 2019
Product Development Engineer Intern   *Hsinchu, Taiwan*
 · Supported NVMe **SSD** system-level **validation** and integration for Client SSD Market segment.
 · Designed test methodologies for automating SSD verification with **Python** scripts.
 · Increased 100% error detection rate and reduced NVMe SSD system-level test time by 50%.
 · Cooperated with the top laptop brand and leading SSD controller companies to analyze SSD failure.

Vision Circuits and Systems Lab   Jul 2017 - Sep 2018
Undergraduate Researcher   *Hsinchu, Taiwan*
 · Compressed CNN for image classification with **Pytorch** and built hardware accelerator with **Verilog**.
 · Synthesized designed hardware with SRAM and analyzed the power consumption and area.
 · Awarded first place in Special Topic on Implementation Competition held by college of NTHU EE.

Professional Skills

 · **Programming Languages**: C/C++, Python, Go, HTML, CSS, JavaScript, Java, Perl, Haskell, Verilog
 · **Engineering Tools**: PyTorch, NumPy, Caffe, Git, RISC-V, MATLAB, Linux

Projects

Construction of an XQuery Processor   Mar 2021
 · Built a processor that, given an XQuery expression and **XML** file, produces a list of corresponding output.
 · Used **ANTLR 4** parser generator to automatically construct abstract syntax trees of the input expressions.
 · Optimized the XQuery Processor by rewriting the XQuery expression by join operator with **Java**.

Semantic Segmentation CNN for driving dataset   Feb 2021
 · Designed encoder/decoder CNN structure for semantic segmentation task using India Driving Dataset.
 · Experienced the task with augment dataset, weighted loss function and skip connection by **Pytorch**.

Kernel Design based on pedagogical OS: UMIX(User-Mode UNIX)   Jan 2021
 · Designed Context-Switching and Scheduling of the kernel including proportional, RoundRobin and FIFO.
 · Designed Synchronization function using semaphores and shared memory of UMIX os in **C**.

Distributed Key-Value storage based on Amazon's DynamoDB   Dec 2020
 · Designed gossip-based replication system and a configurable quorum-type system for RW with **Golang.**
 · Connected multiple servers and clients via RPC interface with conflicts notifications.

Cloud-based File Storage Service Syncing Clients Files   Nov 2020
 · Developed networked file storage application with **Go** to let multiple clients sharing a set of files.
 · Implemented clients interacting cloud service via RPC call which works on the AWS virtual machine.

Face Feature Morphing   Dec 2018
 · Detected and extracted desired part of faces, such as eyes and noses from the webcam or photos.
 · Used Delaunay triangulation to morph features from two faces into one with **Python**.