Shao-Hung (Tom) Chiu

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EDUCATION

Carnegie Mellon University, *Pittsburgh, PA*
Master of Science in Electrical and Computer Engineering *Aug. 2019 – Dec. 2020*
GPA: 3.68 / 4.00
Coursework: Cloud Computing, Embedded System Software Engineering, Reconfigurable Logic (FPGA), Machine Learning on Large Dataset , Foundations of Computer Systems, How to Write Fast Code (HPC), Computer Architecture and Systems

National Tsing Hua University, *Hsinchu, Taiwan*
Bachelor of Electrical Engineering *Sep. 2015 – Jan. 2019*
GPA: 4.00 / 4.30 Major GPA: 4.19 / 4.30
Relevant Coursework: Computer Architecture, OS, Algorithms, Digital Systems Design, Microprocessor Systems

SKILLS

Programming Languages: C/C++, Python
Frameworks: Docker, Kubernetes, Azure, AWS, GCP, Spark
Databases: PostgreSQL, MySQL, HBase, MongoDB
Tools: Bazel, Linux OS, gRPC, Salt

WORK EXPERIENCE

Argo AI, *Pittsburgh, PA*
Software Engineer I and II *Jan. 2021 – Now.*
- Built the production-intent deployment software infrastructure in C++ and Python to support hundreds of fleet operations in daily basis.
- Delivered features of legacy tooling in Python, Rust, and salt, and work cross-functionally on platform reliability, which is essential for fleet operations and product readiness.

Technology for Effective and Efficient Learning (TEEL) Lab, *Pittsburgh, PA*
Intern *May. 2020 – Aug. 2020*
- Developed extended microservice features on Auto-Grading Service using Azure Front Door, Azure Kubernetes and Azure CI/CD Deployment Pipeline to ensure robustness of services
- Delivered Data Engineering course project introducing Apache Spark and Azure Databricks with contexts, reference documents, starter code and interactive project evaluation systems for college-level Computer Science education

ASPEED Technology Inc., *Hsinchu, Taiwan*
Intern *Jul. 2018 – Aug. 2018*
- Researched Super Resolution algorithms on Caffe and Tensorflow machine learning frameworks within recent 2 years with low computation complexity and assisted ASPEED to analyze and evaluate potential IP usage
- Introduced Efficient Inference Engine Design to illustrate domain-specific algorithms and heterogeneous architecture by giving a talk to 30 staff members in ASPEED

ACADEMIC PROJECTS

Cloud Computing Projects, *Pittsburgh, PA*
Carnegie Mellon University *Jan. 2020 – May. 2020*
- Constructed full-stack Twitter recommendation systems based on 1TB Twitter data implemented by Spark, MySQL Database, and NoSQL Database
- Built docker container images and deployed Kubernetes for load balancing, autoscaling and cluster management
- Deployed cloud infrastructures using Infrastructure as Code such as Terraform to achieve efficient cloud service management

Self-Driving Car with Raspberry Pi, *Hsinchu, Taiwan*
National Tsing Hua University *Jan. 2018 – Jan. 2019*
- Developed a lane following algorithm achieving prompt controls up to 6 frames per seconds by utilizing OpenCV and NumPy polynomial functions with Python 3.5
- Scheduled entire 2-semester project and led discussion in routine meetings
- Coordinated 4 teammates' work into 1 stable system involving XBEE, MobileNet, lane following and positioning