

Ping-Min Lin

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Professional Experience

Pinterest Inc.

Software Engineer

Feb. 2018 -
San Francisco, CA

- Logging Platform, Data Engineering

Uber, Core Infrastructure, uMetal Software Platform Team

May 2018 - Aug. 2018

Software Engineer Intern

San Francisco, CA

- Implemented endpoint on Uber edge gateway to external service supporting OAuth2.0 with node.js and Thrift.
- Developed self-healing module for asset management service in Go, robustly reconciling data between sources of truth and communicating with third-party services using Kafka.
- Created CLI tool in Go to fetch asset information from production environment from development machines via proxies, deployed tool to internal Homebrew cask.

IBM Taiwan, China Development Lab, Security Team

Jul. 2015 - Jan. 2016

Software Development Intern

Taipei, Taiwan

- Developed PoC for intrusion protection as a cloud service with Node.js and iptables on self-hosted Cloud Foundry instance and multi-tenant Openstack environment.
- Demonstrated a packet inspector utilizing Netfilter/NFQUEUE inside Docker containers by implementing daemons written in C, handling throughputs over 10Gbps.
- Co-invented *Seamless Abort and Reinstatement of TLS Session (US Patent 20180020020)*, a method allowing passive inspectors to transparently handle existing TLS connections with resumption.

Education

Carnegie Mellon University, School of Computer Science

Dec. 2018

M.S. in Computer Science GPA: 3.85/4.0

Pittsburgh, PA

Coursework Introduction to Computer System, Distributed Systems, Algorithm Design and Analysis

Computer Networks, Practical Data Science, Cloud Computing, Advanced Cloud Computing

Programmable Networks, Computational Photography

National Taiwan University

Jan. 2017

B.S. in Electrical Engineering and B.B.A in Finance GPA: 3.98/4.0

Taipei, Taiwan

Honors Pan Wen Yuan Scholarship, Dean's List (F '12, S '13, S '15)

Projects

Pool-based Solution to Serverless Platform Cold Starts *Independent Study*

Sep. 2018 - Dec. 2018

- Explored and benchmarked rapid elasticity of deep learning model inference workloads by reducing 'cold' starts in Knative serverless platform.
- Implemented and integrated pool-based solution into Knative that reduces P95 response time by at least 85%.

Real-time Intrusion Detection System Using Decision Trees *Course Project*

Sep. 2018 - Dec. 2018

- Built anomaly detection IDS prototype based on BESS and OpenCV to evaluate network performance of previous research.
- Demonstrated the inefficiency of extracting features in existing work, due to latency and throughput bottlenecks once exceeding 10K connections.

Minute Maid *MHacks X, Best Expo App Award & 1517 Most Unique Hack Award*

Sep. 2017

- Designed meeting minute taker iOS app that converts speech into text and also developed clustering methods to classify topics of the speech in 36 hours with a team of 3.
- Implemented speech-to-text conversion with IBM Watson API, clustering the topics using Python's gensim and scikit-learn packages and used Flask, MongoDB, and Google Cloud Storage as the back-end.

Skills

Programming Languages C/C++, Python, Go, Javascript, Java, Bash, Ruby

Tools/Frameworks Linux, Node.js, MapReduce, Git, AWS, Docker, MySQL, Kafka, Kubernetes, Knative