

Ting-Yuan Hsia

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EDUCATION

Santa Clara University, Santa Clara, CA, USA

Master of Science in Computer Science and Engineering

Sep. 2017 - Expected 2019

GPA: 3.72 / 4

- Related Courses: Algorithm, Operating Systems, Data Mining, Advanced Web Programming, Cryptology, Computer Networks

National Taiwan University, Taipei, Taiwan

Master of Science, Department of Electrical Engineering

Sep. 2014 - Jun. 2016

- Master thesis: "Scheduling-Aware Data Prefetching Based on Spark Framework".
- Related Courses: Machine Learning, Artificial Intelligence, Fault Tolerant Computing, Network and Computer Security

National Taiwan University, Taipei, Taiwan

Bachelor of Science in Engineering, Department of Electrical Engineering

Sep. 2010 - Jun. 2014

- Related Courses: Data Structure and Programming

EXPERIENCE

Software Engineer Intern

Facebook, Inc.

Jun. 2018 - Sep. 2018

Menlo Park, CA, USA

- Developed a **cache** service from scratch for an internal system and it reduced page loading time by **60%**.
- The cache service was implemented in **C++** and contains a **Thrift** interface which can be queried from PHP, C++ and Python clients.
- Modified back-end service to add pagination capabilities and added pagination to front-end user interface.

Software Engineer

Zuvio Inc.

Jan. 2013 - Jul. 2016

Taipei, Taiwan

- Developed and maintained client-side products using **C#**, **XAML**, **WPF** and **VSTO**.

Teaching Assistant

National Taiwan University, Department of Electrical Engineering

Feb. 2016 - Jul. 2016

Taipei, Taiwan

- Graded and assisted students in EE 4052, Computer Programming.
- Assisted 50 students with their assignments, problems and projects.

Intern

Ring Line Technology Inc.

Jan. 2011 - Feb. 2011 / Jul. 2011 - Aug. 2011 / Jul. 2012 - Aug. 2012

Taipei, Taiwan

- Deployed and set up an uptime monitoring system (**SmokePing**) for Shin Kong Group.
- Debugged **Windows Mobile** barcode application for Taipei Police Department.

PROJECTS

Scheduling-Aware Data Prefetching Based on Spark Framework

- Proposed a scheduling-aware data prefetching mechanism.
- By evaluation, the mechanism **reduced 14% and 17% Spark execution time** with 25 GB and 50 GB datasets.
- The prefetch mechanism was based on **Spark** task scheduling, data was prefetched to cache just before it will be processed.
- The cache system was based on **Alluxio**, an open source in-memory distributed storage system.
- **Accepted by The 31st IEEE International Conference on Advanced Information Networking and Applications (AINA-2017).**

FileBox

- A full functional **Windows Phone** Dropbox client with **540,000+ downloads**.
- FileBox is available on Microsoft Store: <https://www.microsoft.com/en-us/store/p/filebox/9wzdncrfj0nd?rtc=1>

Car Classifier

- A **Convolution Neural Network (CNN)** based neural network image classification system.
- Demo: <https://notcar-demo.ly2314.cc/>
- Used **Keras** and **TensorFlow** to train the classification model; used **Django** and **Python** to develop the classifier website. Demo classifier website was deployed on **Microsoft Azure**.

SKILLS

Programming Languages

- C#: WPF, Windows Forms, Windows Phone Application Development, VSTO
- C++: Google Test, folly, Thrift
- PHP: HHVM, Hack, XHP, WordPress, Laravel
- Python: Django, Keras, TensorFlow, Theano
- Ruby: Ruby on Rails, Sinatra
- Java, Scala, Shell Script
- Source control: git, Mercurial

Big Data Frameworks

- Hadoop, Spark, Alluxio

System Management

- Cloud Services: Microsoft Azure, Amazon Web Service, Google Cloud Platform, Heroku
- Operating Systems: Windows Server, Red Hat Enterprise Linux, CentOS, Debian, Ubuntu
- Virtualization Frameworks: VMware ESXi, Hyper-V, Xen
- Databases: MySQL, MS SQL, PostgreSQL, Oracle, MongoDB
- Web Servers: Apache, NGINX, IIS