Chien-Wei Sun

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EDUCATION

- **University of Utah** — Salt Lake City, UT
  Master of Computer Science; Focus: Distributed System, Advanced Computer Network; GPA: 3.57/4.00 — *Aug. 2017 – May 2019*
- **National Taiwan Ocean University** — Keelung, Taiwan
  Bachelor of Computer Science and Engineering; GPA: 3.54/4.00 — *Sep. 2011 – Jan. 2015*

SKILLS SUMMARY

- **Languages**: C/C++, Java, Python
- **System**: Windows, Linux, OS X, Shell Script
- **Database**: MongoDB, MySQL
- **Web**: HTML, CSS, JavaScript, D3.js, PHP, Apache, Django
- **Others**: Android Development, Vim, Agile Methodology, Consensus Algorithm, OpenGL

PROFESSIONAL EXPERIENCE

- **National Taiwan Ocean University** — Keelung, Taiwan
  Research Assistant funded by Fisheries Agency, Council of Agriculture — *Aug. 2016 - Jul. 2017*
  - Created **data visualization webpages** using Django framework and Cesium.js global map, showing approx. 1700 fishing vessels as a surveillance interfaces for the governors.
  - Developed **real-time APIs** querying approx. 100 million new vessels data a day in **MongoDB**.
  - Developed data validation tools and database transfer tools to increase efficiency of merging database from different vendors.
  - Ensured the operation of **Apache** and **IIS** servers during an important meeting between nations.
  - Optimized data structures and algorithms for APIs and front-end product.
  - Worked in a **fast-paced** environment with common requirements changes.

PROJECTS

- **In-band Network Telemetry as a Service** — github.com/cwkenwaysun/hp4_INT
  Software Defined Network, P4 Project — *Sep. 2017 - Dec. 2017*
  - Implemented a minimum model that show in-band network telemetry can be used as a profiling feature in Hyper4, which is a platform written in P4 that allow developers to run multiple P4 program on it.
  - Looked into **Scapy** Python library, and built packet sender and receiver with manipulated header that the experiment need.
  - Researched on cutting edge **software defined networking**, the HyPer4 paper, and the P4 language.
  - Developed automation scripts to handle mininet setting and HyPer4 configuration.
- **TEDmap** — cwkenwaysun.github.io/TEDmap/
  D3.js Visualization Web Application — *Oct. 2017 - Dec. 2017*
  - Created a visualization webpage using **D3.js** to help user to understand hot topics around the world, and to find their next interested TED videos.
  - Implemented **multi-thread** web crawler using **Scrapy** Python library to crawl TED official site as the data source.
- **Mobile Library**
  Android Application, Undergraduate Project — *Jun. 2013 - Aug. 2014*
  - Created an **Android app** from scratch along with two other team members. The app is now an extended structure in NTOU app, which is downloaded more than 10000 times, rated 4.4 by about 300 users.
  - Implemented **representational state transfer API server** that renews legacy web-based system of NTOU Library.
  - Implemented **JAVA** user login, session in the Android app.
  - Designed user interfaces and user experience on Android devices.
  - Followed software engineering methodology and work **cross-functionally**.