

YAHN-CHUNG (ANDREW) CHEN

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EDUCATION

University of Wisconsin-Madison

M.S. in Computer Science

M.S. in Industrial Engineering (Operations Research emphasis)

- GPA: **3.82/4.0**
- Teaching Assistant: CS300 Programming II. Introduced students to OOP design and Abstract Data Types.

Madison, Wisconsin

Sep 2016 - May 2019

National Taiwan University (NTU)

B.S. in Bioenvironmental Systems Engineering

- GPA: 3.58/4.0; GRE: Q168/170 (**Top 5%**)

Taipei, Taiwan

Sep 2011 - June 2015

WORK EXPERIENCE

Software Engineer

Product Development @ Appfolio

- Integrated **Rails**, **React**, and **MySQL** to deliver features for SaaS application with agile development
- Modernized legacy rails app with React and refactored REST APIs to **GraphQL**; integrated client app with Apollo to realize serverless and Backend-for-Frontend pattern.
- Designed REST API endpoints for inter-app communication with Grape; aligned with the format of JSON API protocol.
- Implemented unit and integration tests using MiniTest, Mocha, Sinon, Selenium and Enzyme.

San Diego, California

Jul 2019 - Present

Software Engineer Intern

Data Operation Team @ Markable.ai

- Improved ETL pipeline built in **Node.js** by designing a scheduler and modifying data flow architecture to support batch processing with **Redis**.
- Deployed the pipeline on the cloud; containerized with **Docker** image and docker-compose.
- Created config files to process 1M+ product data with different schemas and formats (JSON, CSV, XML).
- Executed continuous integration with Travis CI; implemented integration and unit tests with Mocha and Chai.

Madison, Wisconsin

May 2018 - Dec 2018

Software Engineer Intern

IT department @ DBS bank

- Developed and built automation process to optimize collecting 16K+ user data from dynamic web application (Credit card system) through Selenium in **Python**; reduced operation time by 90%.
- Conducted functional testing for e-dividend payment platform with Selenium during User Acceptance Testing.

Taipei, Taiwan

July 2017 - Aug 2017

PROJECT EXPERIENCE

Video Inference Parallelization with TensorFlow Serving, *Big Data Systems*

- Improved NoScope, an inference-optimized system, by deploying it on a distributed computing environment with 6 machines; deployed the system with TensorFlow Serving and **Docker**.
- Designed a new architecture and applied asynchronous processing and multiprocessing to accelerate video inference; experimented it on a 60-hour video and reduced the inference time by 82%.

UW-Madison

Fall 2018

Distributed Wikipedia Ranking, *Big Data Systems*

- Deployed **HDFS** as the underlying file system and **Spark** as the execution engine on a cluster with 4 machines.
- Implemented the PageRank algorithm to run on 5M+ Wikipedia pages; experimented different partitions and RDD persistence to evaluate efficiency; reduced operation time by 70%.

UW-Madison

Fall 2018

MapReduce++, *Operating Systems*

- Implemented MapReduce framework for a single machine to support the execution of user-defined Map and Reduce functions; supported applications on the dataset with 600K+ keys.
- Designed the infrastructure to facilitate partitioning and sorting for mapper and reducer; applied multithreading and locking to ensure efficiency and correctness in **C**.

UW-Madison

Spring 2018

SKILLS

Programming Languages: Java, Javascript, Ruby, Python, SQL

Distributed Computing: Redis, Docker, Spark, HDFS, AWS

Web Development: Rails, React, Node.js, GraphQL, Gatsby

Tools: Git, Shell Script, Linux, Vim, Scrum, \LaTeX