

# Hsing-Hsien Wang

SOFTWARE ENGINEER

☎ (+1) 213-713-7148 | ✉ hwang@pinterest.com | 🌐 hsinghsw

## Work Experience

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### Pinterest Inc.

Palo Alto, California

SOFTWARE ENGINEER - ML TRAINING PLATFORM

July 2020 - Present

- Saved approximately **\$1.8M/year** on storing model artifacts by migrating from Amazon s3 storage to local storage of individual host
- Deployed more than **2000** models daily to Pinterest production environments by building a ML Ops platform covering *deployment interface*, *version control*, *productionizing models* and *model status monitoring*
- Empowered engineers to manage model versions, configure deployment schedule and monitor model loading progress by an *interactive interface* using React and Flask
- Automated and standardized the model deployment process with a continuous delivery pipeline which *validates model*, *pushes models to production* and *performs canary analysis* to prevent regressions on critical metrics
- *Enabled services to load ML models on production environments* more efficiently by integrating with MLFlow, AWS s3, SQL and Teletraan
- *Performed cluster health check* on **5000** hosts with multiple cron jobs by fetching and collecting model status from each host periodically
- Supported multi-tower model deployment use case and other custom use cases by extending the functionality of ML Ops platform

### Tumblr Inc.

New York, New York

SOFTWARE ENGINEER INTERN - CONTENT INTELLIGENCE

May 2019 - Aug. 2019

- Increased a total of **80,000** users leading to more than **\$40,000** revenue by implementing a system to release inactive blog URLs
- Discovered millions of inactive primary and secondary blog users by creating Hive queries and inspecting users' last login time and blogs' page views
- Launched Airflow jobs to trigger the pipeline including reactivating users, sending emails to users, building dormant users tables and monitoring each stage periodically with Python scripts
- Released **10,000** blog URLs to public through renaming inactive users' blogs using PHP
- Improved users' experience by reducing abusive and spam content in Tumblr through refactoring the queuing process of content moderation items by PHP

### National Chiao Tung University

Hsinchu, Taiwan

BACKEND WEB DEVELOPER INTERN - CURRICULAR PLATFORM

July 2017 - July 2018

- Deployed an official school curricular website with Express and Node.js to evaluate students' learning progress and check their graduation status for the Department of Computer Science from scratch
- Organized past courses to recommend students series of courses to take in future to meet graduation requirements through applying Dijkstra's algorithm
- Implemented **60** RESTful API endpoints and built course tables for different tracks with topological sort
- Established authentication by creating a login system with OAuth

## Education

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### University of Southern California

Los Angeles, CA

M.S. IN COMPUTER SCIENCE

Aug. 2018 - May 2020

### National Chiao Tung University

Hsinchu, Taiwan

B.S. IN COMPUTER SCIENCE

Sep. 2014 - Jun. 2018

## Skills

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**Programming Language** Python, HTML, CSS, SQL, JavaScript, Node.js, Bash, PHP, C/C++

**Tools & Frameworks** Flask, Spinnaker, MLFlow, AngularJS, Express, Airflow, Hive