Chi-Wei (Tomy) Hsieh

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EDUCATION

Carnegie Mellon University   Pittsburgh, PA
Master of Software Engineering - Scalable Systems   Graduating December 2024
- Relevant Coursework: Introduction to Computer Systems, Cloud Computing, API Design, Design Patterns

National Chung Hsing University   Taichung, Taiwan
Bachelor of Science in Computer Science   June 2022
- Relevant Coursework: Algorithms, Introduction to Information Retrieval, Introduction to Reinforcement Learning

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WORK EXPERIENCE

WeRide   San Jose, CA
Software Engineer Internship   May 2024 - August 2024
- Tripled the CI/CD pipeline's task capacity by revamping system architecture for optimal performance.
- Slashed deployment time by 80% by innovating new features and orchestrating chaining deployment workflows in Go.
- Fortified the company's cloud infrastructure by deploying sidecar service containers segregated in Kubernetes.
- Expanded the user base by 30% by designing and implementing highly intuitive and user-friendly features.

Intel   Taipei, Taiwan
Software Engineer Internship   July 2021 - December 2021
- Engineered and sustained a Django full-stack website for dynamic test report visualization.
- Accelerated the bug detection and resolution process by 70% by deploying an automated validation routine.
- Maximized system utilization 80% by integrating time series models into a FastAPI backend platform.
- Enhanced model accuracy by 12% by enforcing rigorous data validation in the data pipeline using Pydantic.

Natural Language Processing Lab, NCHU   Taichung, Taiwan
Research Assistant   July 2020 - November 2021
- Spearheaded the development of the NLP Lab API, a unified platform for research demonstration powered by FastAPI.
- Built and managed the Question Generation Platform, Querator AI, leveraging the NLP Lab API for seamless performance.

SKILLS

Programming Languages	Python, Go, C/C++, Java, Shell/Bash
Frameworks	Flask, Django, FastAPI, PyTorch, Gin
DevOps	Linux/Unix, Docker, Kubernetes, Skaffold, Ansible, Terraform, Google Cloud, AWS, Azure

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PROJECTS

Twitter PageRank Recommendation System
- Architected a large-scale PageRank Spark applications for Twitter graph analysis, deployed on Azure HDInsight and Databricks.
- Designed distributed systems for graph processing, utilizing Spark, Zeppelin, and Azure cloud resources.

Real-Time Ride Matching and Ad Targeting System
- Engineered real-time data processing pipelines using Kafka and Samza to optimize driver matching and deliver personalized advertisements.
- Deployed scalable distributed systems on AWS YARN clusters, ensuring low-latency and fault-tolerant processing of high-volume data streams for real-time ad targeting.

COMMUNITY EXPERIENCE

Event Staff, PyConDE & PyData Berlin - Berlin, Germany   April 2022
- Chaired and regulated rooms through 5 days annual Python community event

Head of Event Planning, YZU CI Orientation Camp - Taoyuan, Taiwan   June 2018 - August 2018
- Led an event planning team of 26 to deliver a 5-day event with 13 activities and over 300+ attendees

Head of Event Planning, AHSNCCU Pop Music Club - Taipei, Taiwan   September 2015 - July 2016
- Led a team of 5 to deliver a joint public presentation with three other clubs, attracting 1000+ audiences