



Wen-Hsing Huang

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WORK EXPERIENCE

Amazon

09/2024 - Present

Software Dev Engineer | Business Payment

Seattle, WA

AP Automation Adoption Enablement in Pay by Invoice Onboarding

- Owned and delivered onboarding enhancement from design to launch, contributing **12%** of orgs progress toward an Amazon S-team goal to reduce customer support contacts.
- Boosted projected annual customer feature adoption by **100k+** by designing, implementing, testing, and deploying **React.js**, **Java** onboarding process enhancement and backfill pipeline with AWS serverless stack.

AP Automation Self-Service Project | 25% customer payment friction reduction and \$150M+ spent unblocking

- Improved UX by implementing **React.js**, **Redux**, and migrating feature via A/B gated **Java Spring** controllers.
- Secured production readiness by conducting Amazon Security Review and implementing **CloudWatch** metric alarms for APIs.
- Optimized API performance and stability by implementing **concurrent** processing with rate limiter to meet upstream TPS SLA
- Reduced latency by **45-65%** (avg) and **60-68%** (P90/P99), cutting API response variance by **80-99%**, lowering operational tickets by **20%**, and eliminating **600+** projected annual latency alarms.

Other Contributions

- Built serverless email pipeline with **AWS CDK**, provisioning Lambda, SQS, SNS Topic, and DynamoDB Streams as infrastructure-as-code.

ASM America

02/2024 - 09/2024

Software Engineer II

Phoenix, AZ

- Developed hotfixes and features in C# and C++ for semiconductor equipment; served as primary contact for first-line issue resolution and minimized production downtime through cross-functional collaboration.

Microsoft

07/2021 - 01/2022

Program Manager Intern | BingAds

Taipei, Taiwan

- Developed end-to-end monitoring dashboard for Microsoft Audience Network, tracking pricing strategies performance, video ads demand, market pricing competitiveness, and global availability with **COSMOS**, **Azure Data Explorer**, **SCOPE**, and **C#**.
- Leveraged **Power BI** to analyze daily **PB+** data and design visualizations for actionable data insights.
- Evaluated algorithm metric effectiveness for image stock keyword recommendations by data analytic.

PROJECTS

Convolution parallel computing optimization of CNN (CS 483 Applied Parallel Programming)

- Increased parallel convolution algorithm performance by **53%** over baseline using **CUDA C++** by profiling bottlenecks with **Nsight Compute/Systems** and implementing optimizations including tiled shared memory, loop unrolling, FP16 arithmetic, and Streams.

Distributed Machine Learning Inference System (CS 425 Distributed Systems)

- Developed a high-performance distributed system in **Python** using **socket programming** over **TCP/UDP**, integrating SWIM-style failure detection, ring-based membership, and job scheduling algorithm to maintain processing time variance within 20%.

EDUCATION

University of Illinois Urbana-Champaign

08/2022 - 12/2023

Master of Computer Science

Champaign, IL

- GPA:** 3.81 / 4.0

National Central University

09/2018 - 06/2022

Bachelor of Science in Computer Science and Information Engineering

Taoyuan, Taiwan

- GPA:** 3.98 / 4.0, **Rank in Dept.:** 1st / 101

SKILLS

Programming Languages: Python, Javascript, C/C++, Java, C#, SQL, Matlab, HTML/CSS, Assembly, VHDL, \LaTeX

Extra Tools & Frameworks: Git, GCP, AWS, AWS CDK, CUDA, Nsight Compute/Systems, Node.js, MySQL, MongoDB, Neo4j, Android

Languages: English (Fluent), Mandarin (Native)