

Frank (Ting-Yu) Yen

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EXPERIENCE

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- Amazon Web Services (AWS), Software Development Engineer II** Jul 2022 – Current
AWS Infrastructure, Data Center Supply Chain Automation (Backend) *Seattle, WA, U.S.A.*
- Designed and built a new set of APIs to reconstruct the digital verification workflow for AWS servers in data centers, aligning with the organization's annual goal of improved and simplified customer interaction. The new CRUD APIs boast a 99.9%+ success rate since launch, ensuring reliable customer service interactions.
 - Increased team integration test success rate from below 50% to consistent reliability. Identified and resolved root causes of errors, eliminating manual test retries and stabilizing the deployment pipeline.
 - Developed an "Assetpedia" user script for automatic identifier detection and information aggregation across various systems. This user-friendly tool saves SDEs and on-calls over 10 minutes per task (used 20-30 times/week), and greatly improves overall efficiency. Moreover, the script won first place in the 2023 AWS SCM Hackathon event.
 - Mentored a new team member on the criticality of data accuracy project in Asset Service. Coached them through their first project, leading them to take independent ownership of the network device data accuracy task.
- Amazon Web Services (AWS), Software Development Engineer** May 2021 – Jul 2022
AWS Security Hub (Backend) *Seattle, WA, U.S.A.*
- Redesigned the Cross Region Finding Replication support for Standards & Controls (CRFRv2) by refactoring a monolithic service. This involved building separate Auditor API Services for DynamoDB interaction and Lambdas for the control panel UI. This shift towards microservices improves scalability and maintainability.
 - Mitigated risks during the rollout of new Auditor APIs that changed existing behavior and introduced new functionality. Increased integration test coverage, ensured backward compatibility, and implemented operational metrics to proactively identify potential issues.
 - Guided an intern, introducing them to the system's business value and collaborating on project definition, design, and planning. This mentorship experience resulted in the intern receiving a return offer from AWS Security Hub.
- Amazon Web Services (AWS), Software Development Engineer Intern** Jun 2020 – Aug 2020
AWS Security Hub (Backend) *Seattle, WA, U.S.A.*
- Designed and implemented a feature flag system using Java on AWS Lambda for dynamic A/B testing across all product accounts. This included building a Node.js client and a REST API (API Gateway) for seamless integration with front-end and back-end services.
 - Created a detailed design document and wiki outlining the A/B testing tool's architecture, workflow, and APIs.
 - Successfully secured a return offer after the internship, showing strong technical skills and valuable contributions.
- Microsoft, Software Development Engineer Intern** Sep 2017 – Jun 2018
Microsoft Bing Search (Backend) *Taipei, Taiwan*
- Upgraded APIs for multiple internal platforms under tight deadlines, ensuring smooth integration and functionality. Presented the work effectively during cross-country conference calls.
 - Designed and implemented a testing tool with optimized workflows and pipelines. This automation reduced engineers' testing time by over 40%, enhancing overall development efficiency.

EDUCATION

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- University of Texas at Austin** Aug. 2019 - Dec. 2020
Master of Science In Computer Science (GPA: 3.93/4.0) *Austin, Texas, U.S.A*
- Relevant Coursework:** Database Systems, Datacenters, Wireless Networking, Algorithm Techniques and Theory, Statistical Methods, Machine Learning, Deep Learning Seminar, Natural Language Processing
- National Taiwan University** Sep. 2014 - Jun. 2018
Bachelor of Science In Computer Science (GPA: 3.61/4.3; Last 60 GPA: 4.13/4.3) *Taipei, Taiwan*
- Relevant Coursework:** Web Retrieval and Mining, Applied Deep Learning, Computer Architecture

TECHNICAL SKILLS

Proficient Languages: Java, TypeScript, C++, C#, Python, Bash, LaTeX, MySQL, HTML, CSS
Technologies: AWS (Lambda, S3, API Gateway, DynamonDB, Step Function, Kinesis Stream, Batch, SQS, CloudWatch, Cloudformation), Git, Docker, ASP.NET, Node.js
Concepts: Micro-service, RESTful APIs, Agile Project Management, CI/CD, Database Systems, Compiler, Operating System, Data Structure and Algorithm, Artificial Intelligence, Natural Language Processing, Web Retrieval and Mining