

Frank Poon

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Education

UNIVERSITY OF WASHINGTON

B.S. Computer Science • September 2016 – June 2020 • Seattle, WA, USA

Experience

TIKTOK (BYTEDANCE)

Software Engineer • July 2022 – July 2024 • New York, NY, USA • [tiktok.com](https://www.tiktok.com)

Worked under TikTok's Creator organization, improving content quality and audience engagement.

- Led development and deployment of ML model infrastructure for plant scanner sticker feature, surpassing expected adoption rate by 60%
- Improved data ecosystem for paid content conversion funnel by identifying and fixing misreported metrics to ensure accurate business insights
- Executed improvements to paid content product based on data analysis, increasing return on ad spend from 60% to 80%
- Mentored junior engineers and organized knowledge sharing sessions to facilitate organizational growth from 20 to 40 members

AMAZON

Software Development Engineer • August 2020 – June 2022 • Cambridge, MA, USA • [alex.amazon.com](https://www.amazon.com)

Alexa Secure AI Foundations (SAIF) makes Alexa data more accessible to internal modelers, data scientists, and engineers in both quality and quantity.

- Spearheaded organization-wide privacy mitigation effort, unblocking over 1000 DS/SDEs in 16 Alexa AI teams by enabling use and export of pseudonymized datasets with a differential privacy algorithm
- Designed and implemented a security framework to SQL query critical Alexa data, reducing average provisioning and query times from 90 minutes to 30 seconds
- Audited team deployment processes and led a refactoring effort, increasing CI/CD pipeline deployment availability and success rates from 40 to 90 percent

SDE Intern • June 2019 – September 2019 • Seattle, WA, USA • aws.amazon.com/premiumsupport

AWS Support improves communication with customers about the availability and health of their AWS services.

- Added integration with a new monitoring service into a REST API to increase failure mode coverage
- Designed scalable solution to overcome data size limit, raising the maximum number of concurrent accounts retrieved from monitoring services per operation from 100 to over 10,000
- Wrote unit and integration tests, along with integrated metrics and alarms for operations and monitoring

Volunteer Work

COMMUNITY BOATING INC.

Volunteer Software Engineer • January 2022 – April 2022 • Boston, MA, USA • [community-boating.org](https://www.community-boating.org)

Community Boating is the oldest public sailing organization in the United States, with a mission to allow people of all backgrounds and abilities to sail.

- Developed notification feature with customizable alerts on sailing conditions
- Conducted traffic estimation and wrote technical design with API contract and business logic
- Implemented frontend; reviewed backend code and DB schema; performed integration testing

Skills

Languages: Python, Go (Golang), Java, JavaScript, Typescript, C/C++, bash, HTML, CSS, SQL

Technologies/Concepts: REST, RPC, node.js, React, Agile/Scrum, Distributed Systems

Tools: git, AWS, Google Cloud (GCP), SQL, Redis, Docker, Kubernetes