

AYAN MAO

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Experience

X (Twitter)

Feb. 2024 – Now

Software Engineer @ Ads Serving Team | Java, Scala, Python

Palo Alto, CA

- Integrated and optimized Google Mobile Ads into X's demand-side platform; driving revenue growth from \$xxK/day (\$xM/year) to \$xxx K/day (\$xxx M/year) within 4 months
- Developed, deployed, and tested ad-serving solutions to enhance platform performance
- Designed and implemented new promoted trends and redirections in explore page and AI trends

Internships

Google

Aug. 2022 – Nov. 2022

Software Engineering Intern @ Ads Mobile Team | Java, Lua, GCP

Mountain View, CA

- Delivered a complete prototype (Metaverse Ads) including a Lua SDK with asynchronous unit tests
- Designed and implemented an end-to-end advertising pipeline in virtual 3D world from scratch, integrated GMA with selected Metaverse platforms, highlighting potential expansion opportunities beyond iOS and Android
- Optimized mobile ads' close button, tested and released it for billions of Android users using Android Studio

Meta (Facebook)

May 2022 – July 2022

Software Engineering Intern @ Ads Infra Team | C++, Python

Menlo Park, CA

- Enhanced ads internal testing platforms by automating A/B tests on test and prod machines, which generated a detailed URL and performance metrics for different commits
- Increased debugging efficiency with scalable features and automated bug fixes, saving engineers 2 hours each time in troubleshooting parent and child canary instances within the ads performance testing system
- Diagnosed and fixed hidden bugs, improved developer efficiency by automating canary terminations

Microsoft Research Asia

Oct. 2020 – June 2021

Research Intern @ System Research Group | Python, Typescript

Beijing, China

- Contributed features like new parameter auto-tuners to the NNI (Neural Network Intelligence: an Open Source AutoML Toolkit for Machine Learning Lifecycle, GitHub 13.2k star), during which NNI added over 3000 GitHub stars
- Increased the diverse downstream search strategies' effect by 24%, with innovative Unsupervised Architecture Representation Learning and NLP-NAS-Benchmark migrated to NAS
- Visualized the arch graph result on the website using React, Typescript and D3.js

Akuna Capital

July 2020 – Sept. 2020

Software Engineering Intern @ Gateway Team | C++, Shell

Shanghai, China

- Replayed and captured market data and orders for the high-frequency and low-latency trading engine
- Increased the latency timestamp accuracy from 0.001ms to 0.000001ms using C++ to help grab profitable orders
- Reduced memory leaks in Gateway exchanges repository by 37% with Valgrind, gdb

Technical Skills

Programming Languages: Java, Scala, C++, Python, Lua, C, Shell scripting

Development Platforms: Linux, AWS, GCP, Xcode, Docker, Arduino, Unity

Frameworks and Tools: MySQL, Hadoop, React, Valgrind, Scalding, gdb, scripts, LaTeX, Maven, Gradle

Education

Northeastern University

2021 – 2023

Master of Science in Computer Science

Seattle, WA

Zhejiang University

2017 – 2021

Bachelor of Engineering in Computer Science

Hangzhou, China