

# AYAN MAO

Palo Alto, CA

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## About Me

Hello, I'm Ayan Mao, a software engineer with 2.5 years of experience in ads, based in the Bay Area on h1b visa. I've been working in X/xAI ads team (sized 20) for 2 years.

Elon Musk is my skip manager and we ads team has weekly meeting with him. My focus is ads serving backend and applied AI. I got promoted and salary raise in 11 months at X, and got a special 40% salary raise this summer.

I make ads system print money smoothly and quickly/stably.

## Experience

<b>X/xAI (Twitter)</b> <i>Software Engineer @ Ads Team   Java, Scala, Python</i>	<b>Feb. 2024 – Now</b> Palo Alto, CA
<ul style="list-style-type: none"><li>Led two junior engineers to deprecate the old ads ranking service successfully, by migrating new-generation ranking model call and auction library into ranking stage of the orchestra service, which supported the epic new-generation ranking model's launch and deleted/simplified tons of legacy ranking code</li><li>Integrated, optimized and scaled Google Mobile Ads into X's demand-side platform; driving revenue 150x growth from one digit million per year within 4 months</li><li>Owned all takeover ads product, including promoted trend, spotlight, first-view timeline and video; ensured its delivery quality and implemented new features for advertisers</li><li>Utilized grok to summarize and categorize ads and user profile as a new ads retrieval source, also vibe-coded to visualize it; grok-based ads became one of most high performance retrieval source</li><li>Enhanced ads fatigue quality to serve more diverse ads, increased click rate by 1.3% and user active seconds by 0.2%</li></ul>	

## Internships

<b>Google</b> <i>Software Engineering Intern @ Ads Mobile Team   Java, Lua, GCP</i>	<b>Aug. 2022 – Nov. 2022</b> Mountain View, CA
<ul style="list-style-type: none"><li>Delivered a complete prototype (Metaverse Ads) including a Lua SDK with asynchronous unit tests</li><li>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</li><li>Optimized mobile ads' close button, tested and released it for billions of Android users using Android Studio</li></ul>	
<b>Meta (Facebook)</b> <i>Software Engineering Intern @ Ads Infra Team   C++, Python</i>	
<b>May 2022 – July 2022</b> Menlo Park, CA	
<ul style="list-style-type: none"><li>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</li><li>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</li></ul>	
<b>Microsoft Research Asia</b> <i>Research Intern @ System Research Group   Python, Typescript</i>	
<b>Oct. 2020 – June 2021</b> Beijing, China	
<ul style="list-style-type: none"><li>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</li><li>Increased the diverse downstream search strategies' effect by 24%, with innovative Unsupervised Architecture Representation Learning and NLP-NAS-Benchmark migrated to NAS</li></ul>	

## 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

<b>Northeastern University</b> <i>Master of Science in Computer Science</i>	<b>2021 – 2023</b> Seattle, WA
<b>Zhejiang University</b> <i>Bachelor of Engineering in Computer Science</i>	
<b>2017 – 2021</b> Hangzhou, China	