
Engineering leader across applied AI, API platforms, real-time payments and advertising infrastructure. Author of two books on API design and cloud infrastructure, and founder of AIP.dev, Google's public API design guidance.

EXPERIENCE

Director, Applied AI

Google DeepMind · Singapore · Jan 2026 - present

- Push the technical boundaries of what Google DeepMind's models can do, building work that stays 6+ months ahead of their out-of-the-box capabilities.
- Work across the full range of DeepMind models, including Gemini, Gemma, WeatherNext and MetNet.

Principal Software Engineer

Meta · Singapore · Feb 2023 - Jan 2026

- **Technical advisor to the COO.** Worked with COO Javi Olivan on speculative, skunkworks AI projects in Singapore exploring new Asia-focused business lines, and supported technical due diligence for M&A.
- **Ad Signal.** Worked on Meta Pixel and other inference-focused data, turning patterns in user behavior into signals for ad targeting.
- **WhatsApp Business.** Explored AI adoption for businesses on WhatsApp, and worked on WhatsApp Flows, advanced interaction routines, and developer tools and SDKs.

Principal Software Engineer, Payments

Google · Singapore · Jan 2020 - Feb 2023

- Led Google's work on Mojaloop, the open-source real-time payment system, including its third-party payment initiation integration.
- Represented Google on the Technical Governing Board of the Mojaloop Foundation.
- Advised governments, central banks and regulators on real-time payment systems, including FedNow (US), NPP (Australia), Pix (Brazil) and IPN (Egypt).
- Advised Google Pay on API design and third-party integrations in new markets, including Japan and Brazil.

Principal Software Engineer, Google Cloud

Google · New York · Dec 2013 - Jan 2020

- Led API design across Google and Alphabet, and founded AIP.dev (API Improvement Proposals) to make those design rules public.
- Designed and built client libraries for Google Cloud APIs in Python, Java, Node.js, Ruby, PHP, C++ and Go.
- Audited and improved the usability of Google Cloud's APIs.

Software Engineering Manager, Display Advertising

Google · New York · Jun 2010 - Dec 2013

- Led the migration of Invite Media's Bid Manager from Amazon EC2 to Google's infrastructure, relaunched as DoubleClick Bid Manager, keeping the system stable while traffic and data volumes kept growing.
- Led east coast engineering for DoubleClick Bid Manager and worked directly with clients in the US and Europe.

Vice President, Engineering

Invite Media · Philadelphia · Jan 2008 - Jun 2010

- Built and managed the engineering team, split between Philadelphia and New York, behind Bid Manager: the first "universal buying platform" for display advertising, bidding in real time across multiple ad exchanges.
- The ad serving system handled hundreds of thousands of requests per second across several thousand virtual machines and processed several terabytes of data a day.
- Acquired by Google in 2010.

PUBLICATIONS

- **The Perfection Paradox: From Architect to Curator in AI-Assisted API Design.** M. Ahmad, A. Macvean, J. Geewax, D. Karger. *CHI EA '26*. arxiv.org/abs/2603.12475
- **API Governance at Scale.** M. Ahmad, J. Geewax, A. Macvean, D. Karger, K.-L. Ma. *ICSE-SEIP '24*. doi.org/10.1145/3639477.3639713
- **API Design Patterns.** Manning Publications, 2021. 480 pp. apidesignbook.com
- **Design Principles for Third-party Initiation in Real-time Payment Systems.** Google, 2021. research.google/pubs/pub50087
- **Google Cloud Platform in Action.** Manning Publications, 2018. 632 pp. gcpia.com

BOARDS AND ADVISORY

- **AIP.dev**, Founder · 2019 - 2023
- **Mojaloop Foundation**, Technical Governing Board · 2020 - 2023
- **BIS Innovation Hub, Project Rosalind**, API Advisory Group · 2022
- **Open Government Products** (Singapore), Board of Advisors · 2022 - 2023

EDUCATION

University of Pennsylvania

B.S., Computer Science Engineering · Philadelphia · 2005 - 2008