Fudong Fan

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EDUCATION

- **University of Michigan** — Ann Arbor, MI
  Master of Engineering in Computer Science; GPA: 3.8 — *Sep. 2019 – Apr. 2020*

- **University of Michigan** — Ann Arbor, MI
  Bachelor of Engineering in Computer Science; GPA: 3.9 — *Sep. 2016 – Apr. 2019*

- **Thomas Jefferson High School for Science and Technology** — Alexandria, VA

EXPERIENCE

- **Google** — New York, NY
  Software Engineer - Ads, Funding Choices — *Sep. 2021 – Present*
  - **Ad Manager, AdMob, AdSense Reporting**: Implement user-facing metrics in Google's three sell-side ads products to support release of new features.
  - **Reporting Pipeline**: Deliver performance improvements to Java batch pipeline that processes millions of events per day, including a refactor to perform writes in parallel instead of sequentially that reduced run time by 40%.
  - **Payments Pipeline**: Designed ingestion system for greenfield project to accept payments, and implemented batch pipeline to pay publishers via existing Google Payments infrastructure.
  - **Integration Testing**: Added integration test coverage for user-facing metrics in Ad Manager, AdMob, AdSense that enhances developer productivity and increases confidence in new features.
  - **Alerting**: Instrumented alerts to monitor errors related to our GDPR consent management product, enabling earlier detection of bugs and ensuring our product is never broken.

- **Bloomberg** — New York, NY
  Software Engineer - Developer Experience, Build Workflow — *July 2020 – Aug. 2021*
  - **Notification Service Refactor**: Refactored Perl service in critical part of system to queue messages and defer sending to a separate process instead of sending messages synchronously. Reduced max latency by 63%.
  - **File Server Rewrite**: Add missing features and squash bugs in Go rewrite of C++ file server, taking new file server to production whilst completing the deprecation of legacy file server.
  - **Telemetry**: Instrumented system to publish Kafka records surrounding package build lifecycle, improving visibility into build failures and providing actionable log evidence to code owners.
  - **Self-Service Portal**: Built React UIs in TypeScript backed by Flask endpoints to support common uses of integration build system, improving usability through providing alternatives to existing command-line tools.

- **Atlassian** — Mountain View, CA
  Software Engineer Intern - Internal Platform as a Service — *May 2019 – Aug. 2019*
  - **On-call Integration**: Pioneered integration of internal service directory with incident management platform Opsgenie. Extended React UI to enable paging developer on call without navigating away from webpage.
  - **Data Ingestion**: Created API in Kotlin to handle requests for ingesting on-call data into database. Designed and implemented GraphQL API in TypeScript for serving ingested data to client.

- **Procter & Gamble** — Cincinnati, OH
  Software Engineer Intern - Enterprise Web Applications — *May 2018 – Aug. 2018*
  - **Applicant Tracking System**: Analyzed functionality of existing applicant tracking system burdened by tech debt, and implemented MVP for modern replacement with React, Flask, MongoDB, S3 stack. MVP was productionized at end of internship and evaluated alongside legacy system afterwards, received positively by recruiting staff.
  - **Deprecation of Flat-File Transfer**: Wrote Python library for submitting asynchronous requests to sparsely-documented vendor SOAP API, enabling efficient seeding and updating of database. Previous system relied on slow and error-prone flat-file database transfer for syncing local database with source-of-truth.

SKILLS

- **Languages**: English (Native), Japanese (perfect score on JLPT N2; will take N1), Mandarin Chinese (conversational)
- **Programming Languages**: Java, Python, C++, TypeScript, JavaScript, SQL
- **Technologies**: React, Flask, Node.js, Docker, Git
- **Knowledge areas**: Batch processing, testing, debugging, schema design, concurrency