

# Matthew Farrer

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## Education

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**Master of Science, Computer Science** *UC Davis*

**Davis, CA** 2021

Relevant Courses: Linear Algebra, Machine Learning. GPA 4.0

Graduate Research Project: Mining of open source Java software repositories.

**Postbaccalaureate Studies, Computer Science** *San Francisco State University*

**San Francisco, CA** 2017-2019

Relevant Courses: Advanced Artificial Intelligence Seminar, Statistics. GPA 3.88

**Associate of Science, Computer Science** *City College of San Francisco*

**San Francisco, CA** 2017

Relevant Courses: Computer Architecture. GPA 3.9

Awarded CCSF Math Department Scholarship and Carl Royce Memorial Scholarship.

## Skills

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- **Programming Languages:** Bash, C, Java, JavaScript, Python, R, SQL, TypeScript.
- **Machine Learning:** Azure ML, Large Language Models, Pandas, Prompt Engineering, Retrieval Augmented Generation, Scikit-Learn.
- **Database:** Postgres, Snowflake, SnowSQL, Sqitch.
- **Observability:** Elasticsearch, Grafana, Graphite, Kibana, Prometheus.
- **AWS:** API Gateway, CDK, DynamoDB, EKS, Lambda, SNS, SQS, S3.
- **Other:** Airflow, Docker, GitHub Actions, Jenkins, Kafka, Kubernetes.

## Experience

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**Software Engineer** *Stealth Mode Startup*

**Remote** 4/2024 - 9/2024

- Backend Software Developer for pre-seed AI startup. Developed backend systems written in Java to programmatically retrieve message threads from Slack, Discord and Reddit platforms. ChatGPT was used for data analysis and summarization. This required prompt engineering techniques such as few shot and chain of thought prompting. The data is used to populate a dashboard displaying key business insights for the customer.

**Software Engineer I** *HBO Max*

**Remote** 10/2021 - 9/2023

- Data pipeline team - ingestion and storage of data sent from client devices, e.g. clickstream, search, subscription, video quality of service, etc. Data was used by numerous downstream business units.
- Team responsibility included two microservices responsible for data ingestion and transformation, as well as a Snowflake instance containing HBO Max historical data archives, in the petabytes.
- Sample work items:
  - Updated Snowflake task logic and tables to correctly handle data sourced from new geographic regions. SnowSQL, Sqitch. This data allowed the company to correctly track subscription activity in Latin America.
  - Debugged a service written in Go that was providing faulty data with respect to the team's Snowflake instance. Go, Snowflake, Graphite. Data reflected critical metrics regarding health of data pipeline.
  - Designed and implemented end-to-end testing framework for team's microservices using Jest, Kafka and GitHub Actions. Tests run automatically on any pull request. Tests validate that sample messages successfully traverse pipeline from ingress to egress.
- AWS, Confluent, Docker, Elasticsearch, Grafana, Jest, Jira, Kafka, Kubernetes, Node.js, Snowflake, Sqitch, Prometheus, TypeScript.

**Software Engineer** *Tata Consultancy Services*

**Remote** 5/2021 - 10/2021

- Participated in Initial Learning Program for full stack software engineer role. Angular, Java.