

Matthew Farrer

Software Engineer

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Education

MS Computer Science *UC Davis*

Davis, CA 2021

Relevant Courses: Distributed Database Systems, Machine Learning. GPA 4.0

Postbaccalaureate Studies, Computer Science *San Francisco State University*

San Francisco, CA 2017-2019

Relevant Courses: Cloud Computing. GPA 3.88

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

San Francisco, CA 2017

Relevant Courses: Computer Architecture. GPA 3.9

Skills

- **Programming Languages:** Bash, C, Java, JavaScript, Python, R, SQL, TypeScript.
- **Software Testing:** End to End Tests, Integration Tests, Jest, Unit Tests.
- **Database:** Snowflake, SnowSQL, Sqitch.
- **Observability:** Elasticsearch, Grafana, Graphite, Kibana, Prometheus, Winston.
- **Other:** AWS including S3 and EKS, Docker, GitHub Actions, Jenkins, Kafka, Kubernetes.

Experience

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.
- Team responsibility included two microservices responsible for data ingest and transformation, as well as a Snowflake instance containing HBO Max historical data archives, in the petabytes.
- Assisted team with operation and maintenance of existing data pipelines. Assisted with expansion of data infrastructure into new geographic regions.
- Microservices were rebuilt from the ground up following merger with Discovery.
- Implemented end to end testing framework for team's microservices.
- AWS, Confluent, Docker, Elasticsearch, Grafana, Jest, Jira, Kafka, Kubernetes, Node.js, Snowflake, Sqitch, Prometheus, TypeScript.

Software Engineer *Tata Consultancy Services*

Remote 6/2021 - 10/2021

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

Teaching Assistant *UC Davis*

Davis, CA 9/2019 - 6/2021

- Served as teaching assistant for a number of undergraduate computer science courses. This provided an opportunity to practice public speaking and present complex technical subjects.

Projects

MS Research Project

Davis, CA 2019-2021

Conducted data mining of top 100 open source Java repositories as ranked by GitHub stars. Python and Java were used to iterate over the commit histories and collect data. R was used to compute and visualize statistics of interest. Eclipse JDT, GitHub API, Java, PyDriller, Python, R.

Software Drum Machine

San Francisco, CA 2019

Uses low level C audio libraries to read and write audio data. User may control beat pattern, gain, and tempo in real time. C, libsndfile, PortMidi, PortAudio, NCurses. <https://github.com/farrerm/DrumMaster>