

## SKILLS

**Languages, Frameworks and Tools:** Python (TensorFlow, Pandas, NumPy, scikit-learn), Ruby (Rails, RSpec, cucumber), SQL (PostgreSQL, MySQL), JavaScript (TypeScript, React, Redux, Next.js, Node.js), C# (.NET), Java (Maven, Liquibase), Go, R, HTML, CSS, GraphQL

**Cloud and DevOps:** Kubernetes, Docker, Amazon Web Services (RDS, SQS, S3, ECS, EC2, EKS, MSK, SSM and more), Google Firebase, Prometheus, OpenTelemetry, Sumologic, Terraform

**Software Architecture:** Microservices Architecture, Arc42 Architecture Standard, C4 Diagramming Model, Mermaid Diagramming Language

## EXPERIENCE

### Staff Applications Engineer

#### Medidata Solutions, a Dassault Systèmes company

Apr 2023 - Present

- Led a 5-engineer backend team building a new Java-based, Kafka-integrated service
  - Implemented two APIs in C#/.NET ahead of the rest of the app due to departmental release timelines
  - Created Arc42 diagrams and docs for database schema, API surface, and Kafka notification topics
  - Configured Java app to use Liquibase for migrating a Postgres database and implemented schema
- Added monitoring and reliability measures using Prometheus in a service written in Go
- POC'd a Lambda-based Kafka stream processor, involving scaling estimates, pricing, and networking
- Implemented an asynchronous workflow management solution for long-running backgrounded jobs
- Built a caching layer to maintain state so that a high-volume workflow could execute more quickly
- Used AWS CDK to write monitoring dashboards in code and deployed them to production

#### Senior Applications Engineer, Medidata Solutions

Apr 2021 - Apr 2023

- Trained a neural network on a dataset of >10,000 data points, using python, Pandas and scikit-learn
  - Achieved strong precision, recall and F1 scores, and presented findings to data science executives
- Led procurement of a Feature Flagging tool: RFP, POCs, pricing negotiations, presentations, rollout
  - Reduced feature delivery duration to <10 seconds from ~20 minutes, allowing teams to move faster
- Implemented APIs, data models, DB schema, caching, and notifications for a feature I designed
- Guided two engineering teams on a feature shifting the core data model in a high volume legacy app

#### Applications Engineer, Medidata Solutions

Apr 2019 - Apr 2021

- Led the feature delivery of a user landing page that allowed customers to migrate to a new platform
- Designed and implemented custom AWS ECS auto-scaling in an application serving >1 million users
- Worked with a team of 4 engineers to maintain, develop, test, and deploy three RoR codebases

### Lab Manager and Research Assistant

#### Brown University, The Clinical and Affective Neuroscience Lab

Jan 2014 — May 2018

- Hired and managed 50+ undergraduates and graduate students working on 15+ projects over 3 years
- Used MATLAB, SPSS, R, and spreadsheets to analyze data, compute statistics, and create graphs
- Ran core aspects of a 5-year clinical trial, including participant enrollment, diagnosis, and assessment

## EDUCATION

**Harvard University: Extension School**, Cambridge, MA. [Transcript](#)

Spring 2023

**Coursera** [Math for Machine Learning](#) (3 courses), [Machine Learning](#) (3 courses)

2020-2022

**App Academy**, New York, NY.

Nov 2018 — April 2019

**Bennington College (BA)**, Bennington, VT. Concentrations: Psychology & Drama

2008 - 2013