Timothy E. Robert-Fitzgerald

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EDUCATION

Oberlin College, Oberlin OH
B.A., dual major in Computer Science and Politics (May 2019)

SKILLS

Languages
TypeScript, Python, R, Go, Java, C, PHP, Scheme

Frontend development
React, React Native, Electron

Databases
SQL (postgreSQL, Cassandra) and NoSQL (MongoDB, Redis)

DevOps
Docker, AWS (EC2, ECS, CloudWatch, Lambda), Ansible, GitHub Actions, Prometheus, Grafana

Data science
Keras, NumPy, pandas, Dask

EXPERIENCE

Software Engineer at Near-Miss Management March 2022 - Present
Develop and maintain React apps for an anomaly detection platform, work on an ETL Python processing pipeline, manage CI/CD processes and clusters on AWS.

- Design and implement user interfaces in TypeScript React using Tailwind CSS, Jotai for state management, D3.js for data visualizations; utilize Next.js, tRPC, and Mongoose for APIs
- Automated CI/CD processes, containerized infrastructure and manage deployments with Amazon ECS
- Employ Dask to process time series data, improved performance of pipelines and flexibility of data structures

Research programmer at PennSIVE center
University of Pennsylvania February 2020 - March 2022
As a programmer working with statisticians, my responsibilities ranged from informatics and data processing to GUI development.

- Co-author on a number of published papers, including first author on an abstract accepted at the ECTRIMS 2021 conference
- Established lab best-practices such as the use of git and datalad
- Developed web apps for data visualization, QC

Web developer at Environmental Dashboard
Oberlin College May 2016 - February 2020
While at Oberlin worked part-time on web apps for visualizing resource consumption and managed the supporting database and server systems.

PROJECTS

Most code I write is private, but some public code includes:

- GWAS browser for Penn publication (github.com/anbai106/bridgeport, www.cbica.upenn.edu/bridgeport)
- Music archive of an Oberlin professor (github.com/Terf/cathy-meints, catharinameints.com)
- Time series prediction applied to energy usage (github.com/Terf/CSCI374) and the stock market (github.com/Terf/Trader)