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

Frontend web development
React, React Native, Next and Electron frameworks; data visualizations with D3.js, vtk.js

Backend web development
Typescript (tRPC, mongoose), PHP (Symfony, Doctrine ORM, Composer), Python (Flask)

Data science
Python (Keras, Numpy, Pandas, Nipype), R

Object-oriented, functional and systems programming
Java, Scheme, Go, C, Assembly (MIPS)

Shell scripting
Version control (git, git annex), containers (docker, singularity)

Database administration
SQL (postgresql, Cassandra) and NoSQL (MongoDB, Redis)

System administration
Site reliability (corosync, Pacemaker, HAProxy), HTTP servers (Apache, Nginx), SMTP servers (Postfix), cloud platforms (AWS, DigitalOcean), Ansible, GitHub Actions, Prometheus, Grafana

EXPERIENCE

Research programmer at PennSIVE center
University of Pennsylvania February 2020 - March 2022
As a programmer working with statisticians, my responsibilities range 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
Developed web apps for visualizing resource consumption and managed the supporting database and server systems.

- Built, maintained, and ensured the CI/CD of web apps which were featured on kiosks across Oberlin, the Toledo public school district and the Great Lakes Science Center
- Worked as team lead with other student programmers

PROJECTS

Most code I wrote for Environmental Dashboard and PennSIVE 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)