
Jordan Safer

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PURPOSE

To help advance human longevity by using computational techniques to accelerate biology research and drug development. Cell modeling and molecular interaction modeling are especially interesting.

EDUCATION

Carnegie Mellon University, Pittsburgh, PA - *Master of Science in Electrical and Computer Engineering*

SEPTEMBER 2017 - MAY 2018

- Coursework focused on signal processing and neuroscience
- Teaching Assistant for Digital Signal Processing

Carnegie Mellon University, Pittsburgh, PA - *Bachelor of Science in Electrical and Computer Engineering*

SEPTEMBER 2014 - MAY 2017

- Coursework in advanced algorithm design, embedded systems, advanced digital logic design
- Worked 3 semesters as a Teaching Assistant for Functional Programming
- Organizations: Served as Vice President of the Jewish Student Association and Finance Chair of the Student Activities Board's Film group

SKILLS

- Programming comfortably in most languages: Java, Python, Javascript, shell, C, Matlab, OCaml, SystemVerilog
- Working in unix & linux shells, using version control (git), building cloud applications on AWS, GCP, and Azure with serverless & server technology stacks
- Generating and analyzing protein features from tools & databases including: foldX, fpocket, DSSP, PSP, uniprot, Pymol, and alphafold2
- Developing for websites in common frameworks like React, Angular, Handlebars, JSP, etc
- Operating physical hardware, including microcontrollers, FPGAs, and desktop components
- Languages: Fluent Hebrew, Intermediate Chinese, Elementary French

EXPERIENCE

Broad Institute of MIT and Harvard, Cambridge, MA

Computational Associate - Center for the Development of Therapeutics (CDoT)

APRIL 2023 - PRESENT

- Generating protein structure data for analysis in Sumaiya Iqbal's group, with a focus on deriving new insights from both experimental and predicted protein structures

Software Engineer - Data Sciences Platform (DSP)

OCTOBER 2021 - MARCH 2023

- Helped deliver Terra on Azure on time with 2 temporary teams, the Apps team and the Landing Zone team
- Coordinated with the Data Repository team so researchers could use the full analysis platform on large scale public datasets stored in the repository

Amazon Robotics, North Reading, MA - Senior Software Engineer, Inventory

JULY 2018 - SEPTEMBER 2021

- Amazon Last Mile Automation
 - Worked alongside the station and planning teams to deliver a robotic solution to last mile
 - Led the move from internal legacy systems to AWS serverless technology for our team
- Inventory software support and feature development
 - Took responsibility for shelf stability and station hardware within the team
 - Worked closely with the support team on incident response and post-incident analysis
- Talent development
 - Led “Tech Talks” and worked with engineers and recruiters on campus to maximize our reach to strong student candidates
 - Interviewed over 25 applicants 1-on-1 for intern and full-time positions, worked with a team to automate cutting down on bias in interview feedback
 - 1-on-1 mentored an intern, whose outstanding work earned them a full time role!

JUNE 2017 - AUGUST 2017, INTERNSHIP

- Successfully delivered an integrated testing and visualization system with a co-intern. We integrated the visualization with my game-engine based simulation system to test the teams’ self-driving robots

University of Pittsburgh - Department of Neurobiology, Pittsburgh, PA - Research Assistant in the Laboratory of Dr. Brian M. Hooks

FEBRUARY 2018 - JUNE 2018

- Analyzed spectroscopy data from mouse brains to understand the connectivity between regions
- Failures: tried using Hough transforms and Sobel filters to emphasize activated neuron axons
- Successes: Used PCA to differentiate regions based on connectivity, improved downsampling for high-resolution data

PROJECTS (<https://github.com/jordansafer>)

- 2021: Integrated existing open source projects to make a chrome extension that uses OpenCV to read text from a screen-selection
- 2020: Covid19 graphs website to view case graphs on NYT data in March 2020, built first computer and baked first GPU, mechanical turk experiment to transcribe old census data, react website to make a personal server-based timer
- 2019: AI to play Screeps computer-game. Manages resources, attacks, defense, construction, market transactions, harvesting, etc

PRE 2019/University

- Designed and implemented a compiler with a partner for the c0 language. Implemented 5 stages, lexing, parsing, type-checking, optimization, code-generation. Lost sleep dealing with $x[i] = ++x[i] + x[i]++$ type memory handling
- **Ask about:** Fall Detector, router, PacRunner (python games), Lukas-Kanade, smart football

OUTSIDE OF WORK

Semi-competitive runner, working on transitioning from 8 kilometer races in college to the marathon and ultramarathon distances.