Gil Rosenthal

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ABOUT ME

I started coding in 6th grade making Minecraft mods, and haven't stopped since! I have experience across all levels of Software Development, from low-level C to functional programming in Haskell to Machine Learning with Pytorch to Front-end development with React. I pride myself on my ability to pick up a new language or technology quickly and make significant contributions to projects from the first day. I love learning new things, especially on the job! In my free time, I love taking my dog on walks, playing board games with my friends, and taking things apart (and usually failing to put them back together).

EDUCATION

University of Chicago — **Chicago, IL**
MS In Computer Science, BS in Computer Science, Specialization in Machine Learning — *June 2023*

- **Cumulative GPA:** 3.95, *Summa Cum Laude*; **SAT:** 1600
- **Awards & Honors:** Phi Beta Kappa Society, Dean's List, Presidential Scholar Nominee, Robert Maynard Hutchins Scholar
- **Relevant Coursework:** Machine Learning for Biology, Neural Networks, Machine Learning, Mathematical Foundations of Machine Learning, Theory of Algorithms, Discrete Mathematics, Compilers, Operating Systems, Natural Language Processing, Graph Theory, Computer Architecture, Large Language Models, ML for Systems, Networks and Distributed Systems

WORK EXPERIENCE

PDT Partners — **New York, NY**
Summer Technology Analyst — *June 2022 - August 2022*
Associate (Role details confidential) — *September 2023 - Present*

Onshape, a PTC Company — **Boston, MA**
Operations R&D Intern — *June 2021 – Aug 2021*

- Proposed, designed, and implemented Pythia (named after the oracle at Delphi), a predictive autoscaling manager for Onshape server AWS instances using Machine Learning
- Wrote custom parser and data pipeline to collect real-time and historical information on traffic and server utilization metrics
- Created a model using XGBoost and Pytorch Transformers to forecast future traffic metrics
- Created a model using Linear Regression to predict server utilization based on traffic metrics, and automatically scale according to these predictions to minimize Quality of Service Violations

Payette Associates — **Boston, MA**
Software Development Intern — *June 2020 – September 2020*

- Created a custom Power BI visual extension integrating the firm's architectural models into Power BI dashboards through Speckle, allowing for data-enriched design visualizations leveraging information from Autodesk Revit datasheets and Excel spreadsheets, and other architectural data sources. Written using React, TypeScript, Three.js, and Speckle.
- Proposed, designed, and implemented the Lab Planning Dashboard, a real-time collaborative exploratory tool for architects to plan prospective labs and lab buildings and generate presentation-ready scaled room graphics and descriptive statistics for clients. Written using React, Redux (Logux real-time backend), MongoDB, and Express.

CATALOG DNA — **Somerville, MA**
Software Development Intern — *July 2019 – September 2019*

- Created a full-stack frontend, corresponding Terminal UI and CLI, and backend for clients to interface with the company's proprietary DNA data storage methods (the equivalent of a DNA Google Drive). Written using React, TypeScript, and GraphQL.
- Created an internal-facing lab tracking application for use inside the chemistry lab to track the progress of various multi-step tasks such as PCR Amplification, Random Data Access, and Data Duplication. Written using React, TypeScript, and GraphQL.

EXTRACURRICULAR ACTIVITIES

Center for Data and Computing at the University of Chicago — **Chicago, IL**
Research Assistant — *September 2020 – June 2021*

- Working under Professor Rebecca Willett conducting research using ML to improve sub-seasonal weather forecasting
- Responsible for writing scripts to download the data from various sources, clean it and merge it into one dataset, pre-process it using various normalization and trend removal methods, perform feature reduction via Principal Component Analysis and Autoencoders, and then evaluate various models' performance on it.

Model United Nations at the University of Chicago — **Chicago, IL**
Chief Administrative Officer — *April 2021 – May 2022*
Deputy Director of Administration — *April 2020 – April 2021*

- Coordinate logistics for four-day Model United Nations conference attended by over 3000 high school students and advisors.
- Manage the administrative team of 20+ UChicago students responsible for running all non-committee content at the conference
- Serve as main contact point for over 150 advisors leading their delegations, as well as managing all registrations and forms.