

# Tyler Vergho

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Full-stack software engineer with 2 years of professional experience. A highly motivated learner and self-starter. Specifically drawn to cutting-edge AI research and applications.

## WORK EXPERIENCE

**CivicBell**, Software Engineer *Mountain View, CA* **November 2022 – Present**

Developing features for a civic engagement platform built using React/React Native, Express, Node, and Postgres, deployed on AWS.

- Lead a team of 4 developers. Coordinated major UI revamps and redesigned APIs for user registration, mobile push notifications, and local news, increasing customer conversion by ~30%. Trained and onboarded one new developer to the team.
- Identified and optimized SQL query inefficiencies that reduced initial load time by ~80%.
- Spearheaded backend integration testing using Jest to increase coverage on critical user-facing features.

**Amazon Web Services**, Software Engineering Intern *Seattle, WA* **June 2022 – September 2022**

Intern on the AWS DynamoDB Streams team.

- Developed a system in Python to automate load balancer management for network application traffic. This reduced cumulative team developer time expenditure by ~5/days each month.
- Collaborated with senior engineers to deploy changes to production infrastructure handling >10 million requests/second.

**Canopy**, Software Engineering Intern *San Francisco, CA* **April 2022 – June 2022**

Worked alongside senior engineers to ship production-ready frontend/backend code with React, Redux, TypeScript, and NestJS for a Series A startup developing a SPV investment management platform.

- Revamped integration with Plaid and Modern Treasury APIs to simplify user experience on >\$1 million in payment flows/month.
- Engineered a new frontend customer onboarding form in collaboration with the legal team for the launch of a VC funds product.
- Streamlined package dependencies to cut bundle size and reduce First Contentful Paint load time by ~30%.

**Dartmouth DALI Lab**, Software Engineer *Hanover, NH* **August 2020 – June 2023**

Collaborated in teams of developers and designers to develop full-stack applications within an on-campus development lab at Dartmouth.

- Developed a Ruby on Rails course management platform over 9 months. Launched to 4,000+ students in fall 2022.
- Oversaw growth of the lab from 25 to 40+ developers. I facilitated weekly workshops and meetings, organized onboarding and mentorship programs, and expanded documentation and technical resources as **software engineering lead** (one-year term).
- Architected an anti-phishing contest platform (GoPhish) managing 1,800+ participants and \$10,000 in prizes for Dartmouth. Mentored and led development of a full-stack React Native live game show application integrating Firebase, PayPal, and AWS.

**Trout Insights**, Software Engineer *Remote* **December 2020 – May 2023**

- Developed and maintained a React.js full-stack mapping application that supports >5,000 active premium users/month.
- Architected a custom backend API integrating third-party services such as Firebase, Mapbox.js, Stripe, and MailChimp.

## EDUCATION

**Dartmouth College**, Hanover, NH

Master of Science – Computer Science (AI concentration)

2024 (expected)

Bachelor of Arts – Computer Science

2023, GPA: 3.83 (cum laude)

**Relevant Coursework:** Full-Stack Web Development, Smartphone Programming, Discrete Mathematics, Software Design & Implementation, Algorithms, Computer Architecture, Machine Learning & Statistical Analysis, Artificial Intelligence, Music & AI

## SKILLS & INTERESTS

**Languages:** Python, TypeScript/JavaScript, HTML/CSS, SQL, Java, R

**Frameworks:** React/React Native, Express, Flask, Node.js, Ruby on Rails, Jest, PyTorch, Tensorflow, NumPy

**Tools:** AWS, Google Cloud, Docker, PostgreSQL, MongoDB, Git, CUDA

**Awards:** Winner of the 2021 & 2022 National Debate Tournaments and Rex Copeland Award for intercollegiate debate

## PROJECTS

**Logos:** A search engine for intercollegiate policy debate evidence. Built using React, Next.js, and Pinecone for vector-based semantic search. Code available [here](#).

**Mirrorful ESLint Plugin:** Custom ESLint plugin built for Mirrorful, an open-source Javascript UI design library. Code available [here](#).

**AI Evidence Production:** Automating debate evidence production with GPT-4. Built with Python, VBA scripts, and OpenAI APIs. Code available [here](#).

**Generative AI Audio:** Experimenting with audio generation using deep neural networks (diffusion models and GANs). Code available [here](#).