

## EDUCATION

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### Vassar College

*Bachelor of Arts in Computer Science and Mathematics (Double Major)*

- GPA: 3.70/4.00

- Relevant coursework: Operating Systems • Bayesian Statistics • Modeling Minds, Brains, Behavior • Compilers

Poughkeepsie, NY

Aug 2021 - May 2025

### Coding Temple

*Full-Stack Software Engineering Bootcamp*

- Project-based training building full-stack web apps using **React**, **TypeScript**, **Python (Flask)**, and **PostgreSQL**
- Developed and deployed RESTful APIs, implemented authentication with **Auth0** and Firebase
- Practiced version control with **Git/GitHub** and solved daily challenges on **Codewars**

Remote

May 2025 - Present

## SKILLS

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- **Programming Languages:** Java, Python, Go, TypeScript, JavaScript, C, OCaml, SQL
- **Frameworks & Libraries:** React, FastAPI, Django, Node.js
- **Databases:** PostgreSQL, MongoDB, MySQL
- **Cloud & DevOps:** Google Cloud Platform (GCP), Docker, Git
- **APIs:** RESTful API design & integration

## WORK EXPERIENCE

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### Cognizant

*Generative AI Externship*

- Developed two generative AI projects that demonstrated effective use of pretrained transformer models (GANs, GPT), as measured by successful implementation of prompt optimization and fine-tuning techniques.
- Collaborated with a mentor and received feedback on deliverables and gained exposure to real-world AI applications.

Remote

May - Jun 2025

### Research Assistant (Go)

*Marc Smith | Chair of the Computer Science Department*

- Designed and implemented **ParV2**, a variadic concurrency abstraction in Go, using reflection to execute arbitrary functions in parallel with full runtime validation safely.
- Delivered a **PAR composition operator** inspired by CSP and Occam's parallelism, now serving as the foundation for research into Go-native artificial neural networks (ANNs).
- Built a **pipeline-based concurrent sorting system** and replicator utility, simplifying dynamic channel wiring and showcasing real-world applications of parallel function composition.

Poughkeepsie, NY

Aug 2024 - May 2025

## PROJECTS

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### FitTrack AI (<https://fit-track-fe.vercel.app>)

Jun 2025

*FastAPI, PostgreSQL, React (TypeScript), OpenAI GPT-4o, Leaflet.js*

- Built and deployed a full-stack AI fitness platform that generated personalized half-marathon training plans using GPT-4o and user data.
- Used structured daily logs (sleep, mood, workouts) to drive adaptive LLM feedback loops, increasing my 10K training consistency from 1x/week to 3x/week.
- Integrated OpenRouteService and Leaflet.js to visualize real-world running routes, enhancing user motivation through spatial context.
- Connected Strava API for seamless activity import and progress tracking across mobile and GPS devices.

### Fine-Tuned BERT for Question Answering on SQuAD v1

Jun 2025

- Fine-tuned `bert-base-uncased` on SQuAD v1 using Hugging Face, achieving EM: 77.45% and F1: 85.19% by designing a custom postprocessing pipeline.
- Improved baseline accuracy by 40+ points through progressive scaling, learning rate scheduling, and precision tuning.
- Logged model performance and visualizations via Weights & Biases for real-time experimentation insights.

### ValentinePlusPlus

Feb 2025

- Built a digital Valentine's Day card platform with React and Express, delivering 150+ custom messages via Nodemailer.
- Designed four animated, customizable card templates with unique shareable links to boost student engagement.

## LEADERSHIP

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### Captain

*Vassar Men's Track and Field*

Poughkeepsie, NY

### President

*VC++ (Vassar College Computer Science Organization)*

Poughkeepsie, NY