# Barrett Ruth

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## Skills

- Python, Javascript, C++, C, TypeScript, CSS, TailwindCSS, HTML, Java, Lua, Bash
- React, Flask, Django, PostgreSQL, SQLite, Redis, Docker, Google Cloud Platform

## Education

University of Virginia, Charlottesville, VA                                    August 2022 - May 2026
Bachelor of Computer Science, Bachelor of Economics                            GPA: 3.97/4.0

## Experience

### Nth Venture Studio - CERTD                                    February 2023 - August 2023
**Full-Stack Software Engineer, Artificial Intelligence Intern**

- Independently developed company MVP solution shared with CEO and investor board
- Reduced content creation time by 80% by migrating data to cloud using event processing with Redis and RQ
- Designed and implemented an automated assessment and content-creation process for clients with Flask, PostgreSQL, and machine learning transformer technologies
- Ensured timely completion of projects to meet studio deadlines by effectively collaborating with both studio CTO and CERTD staff

### GoTransverse                                    August 2020 - February 2023
**Full-Stack Software Engineer**

- Pioneered internal environment release management system for internal products using Swagger, Flask, scripting, and MariaDB technologies
- Reduced the time to dispatch jobs by 25% by revamping frontend UI with ReactJS and TailwindCSS technologies
- Managed revenue and batched job details to ensure consistent, correct, and intelligent cloud billing operations for clients at an international scale
- Consistently met product release deadlines by maintaining effective mentor and team communication in both online and in-person environments during school years over 16 consecutive months

## Projects

### theCourseForum                                    August 2022 - Present
**Vice President, Head of Engineering**

- Oversee university-wide website operations, application infrastructure, and team coordination
- Reduced website downtime from 8 hours 2 hours (a 75% reduction) by coding automated crash reports and employing lean six-sigma methodologies to reduce miscommunication between developer roles
- Organize the interviewing and training of new recruits in Django, JavaScript, and MySQL technologies

### Atlas                                    July 2023 - Present
**Machine Learning Research Blog**

- Develop and maintain machine learning research journal using Next.JS, TailwindCSS technologies
- Discusses cutting-edge transformer architectures and the interpretability of novel black-box algorithms (VQ-VAE, GPT, Diffusion) to make deep learning more approachable and intuitive
- Iterated with co-developer to optimize reader experience with D3.js and in-browser code execution

### nvimdev                                    August 2023 - Present
**Software Organization, Core Maintainer**

- Publish and maintain projects with 6,000+ github stars supporting Neovim code editor ecosystem
- Implement features and address bugs within a 24-hour window working asynchronously with global team
- Quickly adapt to fragile external APIs, ensuring timely and robust plugin updates

### International Collegiate Programming Contest (ICPC)                     August 2023 - Present
**National Programming Competition, Team Lead**

- Compete in ICPC as university representative, focusing on timed algorithmic problem-solving and team work