Josiah Riggins

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EDUCATION

Rensselaer Polytechnic Institute   Troy, NY
B.S. in Computer Science   *Anticipated May 2027*
Relevant Coursework: Principles of Software, Programming Languages, Introduction to Algorithms, Data Science, Data Structures, Computer Organization, Linear Algebra

TECHNICAL SKILLS

Languages: C++, Python, HTML, TailwindCSS, JavaScript, SQL, Typescript
Tools/Frameworks: Git, Vagrant, Next.js, FastAPI,React,Vercel

EXPERIENCE

YACS (Yet Another Course Scheduler)   Troy, NY
Software Developer – Rensselaer Center for Open Source (RCOS)   *Aug 2025 – Present*
- Built **FastAPI** RESTful APIs handling high-volume async requests with **PostgreSQL** and **SQLAlchemy**
- Refactored endpoints reducing query complexity and improving consistency for **React** frontend
- Collaborated with developers to modernize the platform, improving stability and usability for **700+ students**.

Submitty   Troy, NY
Software Engineering Contributor – Rensselaer Center for Open Source (RCOS)   *Jan 2024 – Apr 2024*
- Developed and tested features for RPI's automated grading platform used by **1,000+** students and instructors
- Refactored problematic UI features, improving long-term platform stability and reducing maintenance overhead
- Collaborated in weekly stand-ups to track progress and address **15+** blockers during the development cycle
- Reviewed **25+** pull requests to ensure adherence to coding standards and detect bugs before merge

PROJECTS

Revamp | *TypeScript, React, Next.js, Tailwind CSS, Vercel*
- Built **Next.js** app to modernize legacy HTML, implementing rate limiting (**40 req/min**) and proxy routing
- Integrated OpenRouter API with rate limiting and error handling, processing **7K+** lines of HTML in under **30s**
- Deployed on Vercel with proxy routing for cross-origin assets, ensuring **100%** uptime and fast renders

CampusPaths | *Java*
- Enhanced path finding by implementing efficient graph algorithms for shortest-path queries between **70+** buildings
- Increased test coverage for key components from **85%** to over **90%** by writing targeted unit and integration tests
- Optimized CSV parsing and controller logic, ensuring faster data loading and reliability across **100%** of test cases

Jenga Simulation | *C++*
- Developed grid-based Jenga simulation enabling block addition/removal while maintaining stability
- Implemented modular classes (Block, Unit, Jenga) with recursive stability checks, reducing bugs by **30%**

LEADERSHIP & ACTIVITIES

Society of Hispanic Professional Engineers (SHPE)
- Coordinated logistics for **20+** major events, managing venue setup and catering for 100+ attendees while staying within budget
- Mentored high school students in STEM through SHPE Jr., organizing workshops/events for **50+** participants
- Spearheaded advertising campaign and coordinated distribution of **500+** flyers, increasing membership by **15%**

Outreach: Rensselaer Polytechnic Institute | *Computer Science Lead Developer*
- Led **5**-member team to build CLI-based STEM quiz program with **20+** problems & **5+** ASCII animations
- Scheduled and hosted weekly meetings, assigned tasks, and resolved blockers to ensure on-time delivery
- Served as lead presenter for program events, reaching an audience of **100+** students