Brian Tam

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EDUCATION

Rensselaer Polytechnic Institute — Troy, NY

Bachelor of Science in Computer Science and Information Technology and Web Science — *August 2024 - May 2027*

Relevant Coursework: Data Structures and Algorithms, Discrete Mathematics, Computer Architecture, Operating Systems, Intro to Algorithms, Principles of Software, Human Computer Interaction

EXPERIENCE

Undergraduate Programming Mentor — Aug. 2025 – Present

Rensselaer Polytechnic Institute — *Troy, NY*

- Support a CS1 course with 500 students, selected through a competitive process typically reserved for upperclassmen, focusing on Python, recursion, data structures, and algorithmic problem solving.
- Guide students through Python debugging, problem-solving, and applying core data-structure and algorithmic techniques.
- Support weekly lab sessions and hold office hours, providing targeted help on homework and code optimization.

Front-end Web Developer — Jan. 2025 – May 2025

Rensselaer Center for Open Source — *Troy, NY*

- Built and styled front-end components of the HackRPI 2025 website using React, Tailwind CSS, Node.js, and TypeScript.
- Collaborated with a 19-member development team using GitHub for version control, peer code reviews, and agile methodologies.
- Improved the user experience by implementing smooth animations for interactive elements with React, resulting in smoother performance on low-end devices.

PROJECTS

ByteBite – Best Data Science Hack, HackRPI 2025 | *React, JavaScript, Node.js, GitHub, Render* — Nov. 2025

- Developed an AI-powered dining recommendation platform that normalized JSON feeds from Sodexo, applied dietary preferences, and generated real-time rankings with Google Gemini.
- Led front-end development using modular React components to deliver a responsive, production-quality user experience in under 24 hours.
- Built a schema-inference parser that resolved unpredictable key-value structures across 20+ menu formats and integrated an AI chatbot powered by Google Gemini.

The Thread – RCOS Project | *TypeScript, React, MongoDB, AWS S3, Tailwind CSS* — Aug. 2025 – Present

- Help build the platform from the ground up as part of the founding development team for *The Thread*, RPI's new editorial magazine website.
- Implement core React components that power live content updates and integrate them with a MongoDB + AWS S3 backend for dynamic content rendering and real-time updates.
- Collaborate with a 6-person team using GitHub workflows, agile sprint planning, and code reviews to ship milestone features.

Movie Recommendation App | *React, TypeScript, Node.js, MongoDB, Axios, Vercel* — Mar. 2025 – Present

- Build a full-stack movie discovery platform integrating the TMDb REST API for real-time data on trending titles, cast, and streaming providers.
- Design an interactive, responsive UI using React + Tailwind, increasing engagement by 40% through trailers, previews, and watchlist flows.
- Engineere a scalable Node.js + MongoDB backend to support personalized recommendations and watchlists.

TECHNICAL SKILLS

- **Languages**: Java, Python, C/C++, JavaScript, TypeScript, MIPS, x86 Assembly
- **Web & Frameworks**: React, Next.js, Node.js, Express, Tailwind CSS, HTML/CSS
- **Databases & Cloud**: MongoDB, AWS S3, NoSQL, Local Caching, Docker
- **Developer Tools**: Git, GitHub, VS Code, Linux/Unix, Bash, Figma, Vercel, Netlify, Agile Workflows