

# THOMAS RICCI

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## Education

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### Worcester Polytechnic Institute

Expected Graduation: May 2027

BS in Computer Science

**Relevant Coursework:** Accelerated Introduction To Program Design, Accelerated Object-Oriented Design Concepts, Systems Programming Concepts, Algorithms, Computational Engineering, Computer Networks, Software Engineering, Operating Systems, Foundations of Computer Science, Theory of Computation, Distributed Computing Systems, Mobile & Ubiquitous Computing

## Skills / Proficiencies

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**Languages:** TypeScript, JavaScript, Nix, Java, Kotlin, Go, Racket, Python, Bash, R, C, C++, Powershell, Rust, C#, Hyperscript, BF and related esolangs

**Markup Languages:** JSX, TSX, HTML, CSS, SCSS, XML, Markdown, Typst, LaTeX

**Libraries & Frameworks:** React, Node.js, Bun, Pixi.js, ShadCN, Next.js, Prisma ORM, TailwindCSS, Express.js, OpenCV, Vite, Vitest, React Router, TanStack, Bootstrap, htmx, Cypress, JUnit, nginx, Caddy, Jupyter Notebooks, NumPy, pandas

**Tools & Platforms:** Git, GitHub, GitHub Actions, Cloudflare (Proxy, Zero Trust, Workers, Pages, KV, R2, & more), Gradle, Maven, npm, Yarn, pnpm, nixpkgs, Docker, Linux (NixOS, Ubuntu, Alpine, Raspberry Pi OS), Coolify, Figma, QEMU, Cloud Platforms (GCP, AWS, Hetzner, Linode), Claude Code, Cursor, Opencode, VS Code, JetBrains IDEs (IntelliJ IDEA & others), Zed, Google Maps Platform, ADB, Traefik, PostgreSQL

## Projects

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### CAD Software · civicad.com

Aug 2025 – Present

JS, TS, React, Vite, Node.js, ShadCN, TailwindCSS, Google Maps Platform, MassGIS, Pixi.js

- Developing browser-based 2D CAD software for roadway infrastructure and corridor design.
- Building robust roadway design and visualization tools that enhance professional workflows, make it easier for the public to engage with their local governments on roadway projects, and enable municipalities to better serve their residents.
- Integrating satellite imagery and other real-world data via Google Maps Platform and MassGIS.
- Creating a compliance-checking system that ensures design proposals are safe and legal to build.
- Filed provisional patent applications for the fundamental compliance-checking technology behind the software and co-founded The Intersection Company to continue development and bring it to market.

### Hospital Management Platform

Mar 2025 – May 2025

JS, TS, React, Vite, Node.js, Express.js, ShadCN, TailwindCSS, AWS, Docker, PostgreSQL, Prisma ORM

- Led team of 10 student software engineers to develop hospital management software at WPI for the Mass General Brigham healthcare network.
- Developed navigation system, project management solution, directory, and employee communication system and deployed web services and databases on AWS.

### FTC 19460 Captain & Director of Software · robotics.xbhs.com

Apr 2021 – Aug 2023

Java, Kotlin, Gradle, Android, TS, JS, RoadRunner, OpenCV

- Founding member of FIRST® Tech Challenge competitive robotics team 19460 & led team to Massachusetts State Championship as Finalist Alliance in 2023.
- Developed an NFA to emulate a multi-threaded environment using one thread.
- Created declarative framework to rapidly iterate upon autonomous routines using SLAM algorithms.
- Used reflection to manage execution of routines written in Java & Kotlin.

**React Metaframework** · octobox.thomasricci.dev*Nov 2021 – Mar 2023*

JS, TS, React, Vite, Node.js, ESLint, Stylelint, Puppeteer, TailwindCSS, SCSS

- Developed SSG & CSR React metaframework similar to Next.js and Remix.
- Developed robust filesystem router on top of React Location with support for code splitting, lazy-loading, preloading and caching, parallel and waterfall loaders, route actions, and head management.
- Designed custom SSG pre-renderer using Puppeteer.
- Built utility to bootstrap projects using this metaframework with support for ESLint, Stylelint, SCSS, Tailwind & custom unit-testing framework.

**Various Homelabbing Projects** · nexus.thomasricci.dev*June 2019 – Present*

Nix, Docker, Coolify, Pterodactyl, Puffer, Pelican, Pyrodactyl, Traefik, Caddy, nginx, JS, TS, Java, Python

- Performing system administration on self-hosted server infrastructure.
- Managing distributed workloads across multiple machines.
- Building a declarative hardware management and provisioning system with Nix.
- Deploying and managing game servers, AI services, web services, tracking and analytics systems, and various other services.

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**Work Experience**

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**Invoice Cloud***June 2026 – Present*

Software Engineering Intern, Boston, MA

- Developing SaaS with React.

**The Intersection Company***Dec 2025 – Present*

Co-Founder and CTO, Remote

- Developing next-generation CAD software for the infrastructure industry.

**Pyro, Inc.***Mar 2025 – Feb 2026*

Software Engineering Intern, Remote

- Designed and developed frontend experiences with Figma and Next.js.

**Milton Academy***June 2025 – Sep 2025*

Web &amp; Digital Support Intern, Remote

- Published web content, developed version control system for documents served by the Veracross CMS.

**Xaverian Brothers High School IT Department***May 2022 – Aug 2023*

IT Technician, Westwood, MA

- Performed software and hardware installation, maintenance and upgrades.

**LetGo Your Mind — Lego-Based Stem Program***May 2021 – Aug 2022*

Camp Counselor, Boston MA

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**Awards**

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Worcester Polytechnic Institute

- **Robert H. Grant Award**

Xaverian Brothers High School

- 2023 **Computing Award**
- 2023 **Robotics Award**
- 2022 **Robotics Award**