

# 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, LaTeX, Typst

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

**Tools & Platforms:** Git, GitHub, GitHub Actions, Cloudflare (Proxy, Zero Trust, Workers, Pages, KV, R2, and more), Gradle, Maven, pip, npm, Bun, Docker, Linux (NixOS, Ubuntu, Debian, Alpine, Raspberry Pi OS), Pterodactyl, Pyrodactyl, Puffer, Pelican, Coolify, Figma, QEMU, Cloud Platforms (GCP, AWS, Hetzner, Linode), JetBrains IDEs, VS Code, Claude Code, Google Maps Platform, Android, ADB, Traefik, PostgreSQL

## Projects

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### CAD Software · cadforcorridors.com

Aug 2025 – Mar 2026

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

- Developed browser-based CAD software proof-of-concept with advising from a WPI professor for roadway infrastructure design.
- Developed roadway data model and visualization tools to allow users to draw roadways.
- Integrated satellite imagery via Google Maps Platform and MassGIS.
- Built tools allowing users to manage roadway designs with a Streetmix like interface.
- Created a compliance-checking system that checks roadways against guidelines from various sources.
- Filed provisional patents for the fundamental compliance-checking technology behind this 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 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

- Single-handedly developed 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 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.

## **Work Experience**

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### **The Intersection Company**

*Dec 2025 – Present*

Co-Founder and CTO, Remote

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

### **Milton Academy**

*June 2025 – Present*

Web & Digital Support Intern, Remote

- Published web content, developed VCS for internal CMS.

### **Pyro, Inc.**

*Mar 2025 – Present*

Software Engineering Intern, Remote

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

### **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

## **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**