THOMAS RICCI

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Education

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

Skills

Programming Languages: Java, Kotlin, JavaScript, TypeScript, Go, Racket, Python, Bash, Nix, R, C, C++, Powershell, Hyperscript, BF and related esolangs
Markup Languages: JSX, TSX, HTML, CSS, SCSS, XML, Markdown, LaTeX, Typst
Libraries & Frameworks: React, Node.js, TailwindCSS, Express.js, Spigot, OpenCV, Vite, React Router, Tanstack Router, Cypress, Vite, Bootstrap, jQuery, htmx, NumPy, pandas, JUnit, nginx, Caddy, JDA, Discord.js, Discord.py
Tools & Platforms: Git, GitHub, GitHub Actions, Cloudflare, Gradle, Maven, pip, npm, Docker, Linux (Debian, Ubuntu, Raspberry Pi OS, NixOS), Pterodactyl, Pelican, Puffer, Coolify, Figma, QEMU, Cloud Platforms (GCP, Hetzner), Jupyter, JetBrains (IDEA, CLion, WebStorm, PyCharm, YouTrack, Space, etc.), Android Studio, VS Code

Projects

Cloud Infrastructure Platform · deploy.nexus
Nix, Go, Docker, JS, TS *Nov 2023 – Now*
- Developing platform to allow organizations to provision their own hardware to run cloud-native applications.
- Building a declarative hardware management and provisioning system with Nix.

FTC 19460 Captain & Director of Software · robotics.xbhs.com
Java, Kotlin, Gradle, Android, TS, JS, RoadRunner, OpenCV *Apr 2021 – Aug 2023*
- Founding member of FIRST® Tech Challenge competitive robotics team 19460 & led team to Massachusetts State Championship as Finalist Alliance in 2023.
- Developed a nondeterministic finite automata to emulate a multi-threaded environment using one thread.
- Created declarative framework to rapidly iterate upon autonomous routines using visual, inertial, and wheeled SLAM algorithms.
- Used reflection to manage execution of routines written in Java & Kotlin.

React Metaframework · octobox.thomasricci.dev
JS, TS, React, Vite, Node.js, ESLint, Stylelint, Puppeteer, TailwindCSS *Nov 2021 – Mar 2023*
- 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.

Work Experience

Pyro, Inc · Remote
Software Engineering Intern — Product Team *March 2025 – Present*
Xaverian Brothers High School IT Department · Westwood, MA
IT Technician *May 2022 – Aug 2023*
- Performed software and hardware installation, maintenance and upgrades.

LetGo Your Mind — Lego-Based Stem Program · Boston, MA
Camp Counselor *May 2021 – Aug 2022*

Awards

Robert H. Grant Award · Worcester Polytechnic Institute
2023 Computing Award, 2023 Robotics Award, 2022 Robotics Award · Xaverian Brothers High School