

Ryan Fernandes

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WORK EXPERIENCE

Red Hat

May 2025 – August 2025

AI Engineering Intern

Boston, MA

- Yielded a 91% time save, unlocked lossless data postprocessing by building a custom MCP client for [Docling](#)
- Facilitating open-source acquisition of my client by the Docling GitHub organization ([35,000 stars](#), [2,400 forks](#))
- Implemented prompt caching, XML tagging and context compression to reduce client costs/latency by 400%
- >3,000 additional lines (Python) in open-source contributions to Docling-Core, Docling-MCP, Docling-Serve
- Built a full-stack [document ingestion pipeline](#) for RAG and fine-tuning applications (>5,000 lines of code)
- Researching large-scale (100+ documents) postprocessing of unstructured data with multi-agent (A2A) systems
 - **Stack:** Python, Docling, TypeScript (React), Next.js

EDUCATION

Yale University

Expected: May 2028

Bachelor of Science in Computer Science and Electrical Engineering

New Haven, CT

- **GPA: 4.0** (2 semesters, 9.5 courses), **SAT: 1600**
- Yale Computer Society Co-President, Yale Undergraduate Research Association Board Member

Topics: Intensive Physics (Mechanics, Electricity and Magnetism, Special Relativity, Quantum Mechanics), Circuit Analysis and Design, Computer Architecture, Multivariable Calculus, Recursive Programming, Data Science

SOFTWARE PROJECTS AND EXTRACURRICULARS

Yale Computer Society

September 2024 – Present

Co-President

New Haven, CT

- Yale's [premier computer science organization](#) with 80+ developers serving 20,000+ users across 6 live products
- Spearheading an AI initiative to provide GPUs running localized models on vLLM to our developers
- Partnerships with Jane Street, Hudson River Trading, Bloomberg, NVIDIA, and other industry leaders
- Coordinating sponsorships, creating recruitment pipelines, and architecting product infrastructure
- Elected co-president in freshman year

y/labs (Yale Labs)

December 2024 – August 2025

Development Lead

New Haven, CT

- Led a team of developers to create an [all-in-one platform](#) for Yale research. Over 1k users 2 weeks after release
 - **Software Contributions:** denormalized database in MongoDB to optimize search performance, restructured Passport authentication/data handling for >6k user profiles, wrote backend microservices with Express.js for search, account creation and listing manipulation, secured routes with custom middleware, redesigned the entire React frontend with custom components/forms and 2 new pages
- Conducted market research, managed launch outreach to over 10k target users and 2 conference presentations

TECHNICAL SKILLS

TypeScript, React, Python (Pandas, Numpy, Seaborn, SciKit Learn), JavaScript, HTML, CSS, Java, C/C++, MongoDB, Firestore, Backend Development, Express.js, Next.js, Passport, UI/User Experience, Git, MATLAB, Docling, Racket, SystemVerilog, Assembly Language, Unix/Linux, Tailwind CSS, Figma, Arduino, Unity, C#

INTERESTS

Baking (French Macarons), Karaoke, Volleyball/Spikeball, Golf, Justin Bieber, Josh Allen, Fantasy Football