Richard Lu

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EDUCATION

University of Massachusetts Amherst

Amherst, MA

Manning College of Information and Computer Sciences

Bachelor of Science in Computer Science

Candidate May 2025

- GPA 3.3 / 4.0
- Dean's List (two semesters), John and Abigail Adams Scholarship
- Relevant coursework: Data Structures, Algorithms, Software Engineering, Web Programming, Natural Language Processing, Search Engines, Discrete Mathematics, Distributed Systems

SKILLS

- **Programming Languages & Tools:** Python, C, Java, Javascript, Typescript, HTML, CSS, Git, Github Actions, Docker, Jest, WebSockets
- Frameworks & Databases: React, Next.js, Vue.js, Angular, Spring Boot, Express.js, Node.js, Tailwind, FastAPI, MongoDB, PostgreSQL, Redis
- Concepts: SDLC, Agile, RESTful APIs, CI/CD, Cloud Computing (AWS), Object-Oriented Design

WORK EXPERIENCE

ProsperOn Inc.

Boston, MA

Software Engineer Intern

Jan 2025 - Present

- Improved page load times by 30% by implementing lazy loading, reducing initial load times and enhancing performance across 10+ devices.
- Integrated RESTful APIs and UI/UX designs by collaborating with designers and backend developers, maintaining high code quality and comprehensive documentation.
- Engineered a responsive carousel component using React Slick, implementing custom navigation controls and optimizing image loading performance for product showcase pages.
- Implemented CI/CD pipeline using GitHub Actions that reduced deployment time by 25%, automating testing and ensuring consistent code quality across development teams.

PROJECTS

Companion.ai

- Engineered a responsive web application using Next.js, React, and TypeScript enabling users to converse with AI characters with memory persistence.
- Implemented secure authentication with Clerk and designed an efficient Supabase database schema optimized for conversation history retrieval.
- Integrated OpenAI API with Redis-based memory system, reducing API costs by 30% through optimized token usage while maintaining context across sessions.
- Developed Stripe integration for subscription payment functionality with multiple pricing tiers.

Taskify

- Developed a full-stack task management app using React, Node.js, and PostgreSQL, achieving secure user authentication with JWT and a 95% user satisfaction rate in usability testing.
- Streamlined task completion time by 40% by leading UI/UX development for core CRUD operations and implementing intuitive design principles.

FitTrack

- Developed a full-stack fitness tracking application using the MERN stack with RESTful API endpoints and responsive Tailwind CSS layouts ensuring cross-device compatibility.
- Implemented offline capability using service workers and localStorage, achieving 90% offline functionality and reducing data sync times by 50%.

LEADERSHIP & AWARDS

- Vice President, Lambda Phi Epsilon: Oversaw fraternity operations and activities for 20+ members
- Team Lead, UMass Esports Team: Led a team of 5 to 1st place (\$1500) out of 30+ teams