Ryan Leonard

ryanleonard.co

(908) 652-1950 | rleonard772@gmail.com | linkedin.com/in/ryan-leonard02 | github.com/Rleonard02

EDUCATION

Purdue University, West Lafayette, IN   **December 2024**
Bachelor of Science in Computer Science, Concentration in Software Engineering   **GPA: 3.80**

PROFESSIONAL WORK EXPERIENCE

Symetra Financial SWE Internship   **May 2024 - Aug 2024**
- Built and packaged a Python library to streamline GraphQL API interactions, reducing development time for internal teams.
- Developed cloud infrastructure as code using AWS AppSync and DynamoDB and worked on an automated CI/CD pipeline using Azure DevOps to enhance service efficiency among my software team.
- Developed cloud infrastructure as code using AWS AppSync and DynamoDB, contributing to a scalable backend.

Cognition and Learning Lab Programmer   **May 2023 - Jan 1 2025**
- Deployed interactive tests for data collection, improving data acquisition efficiency for research initiatives.
- Parsed and transformed JSON-formatted data into actionable insights, contributing to faster and more reliable analysis.
- Maintained and tested five repositories and database servers, reducing downtime and ensuring smooth research operations.

Machine Learning in Motion - *Research Assistant*   **Jan 2024 - Aug 2024**
- Led a summer research team to enhance an ML-based system for body detection and depth estimation in real time.
- Integrated existing neural networks such as YOLO and OpenCV, improving object detection accuracy and performance.
- Oversaw project milestones, defined sprint goals, and assigned tasks to maintain consistent progress and meet strict deadlines.

PROJECTS

LLM Driven Vulnerability Detection System - Horizon3.ai   **Aug 2024 - Dec 2024**
- Collaborating with cybersecurity professionals to automate vulnerability detection by training large language models (LLMs). Developing a binary differentiation module utilizing Ghidra and BinDiff to identify critical changes in compiled files.
- Streamlining security analysis reports and feeding them to an LLM for advanced bug and risk detection.
- Acted as Scrum Master, scheduling meetings and ensuring the team meets deliverables.

Recipe Remix   **Aug 2023 - Dec 2023**
- Designed a full-stack recipe solution for quick and convenient meal planning, targeting busy college students.
- Led a 6-person Agile team using React.js, Node.js/Express, and MongoDB, ensuring efficient collaboration and sprint goals.
- Developed backlogs, user stories, and project goals each sprint in order to streamline each sprint.
- Integrated Google and Recipe REST APIs for a seamless user experience in searching and organizing recipes.

HTD Talent, Software Engineering Training Program   **Mar 2025 - Current**
- Engaging in a comprehensive training curriculum focused on Java, Spring Boot, React, and software design patterns.
- Participating in daily standups and weekly code reviews to reinforce Agile best practices and high-quality coding standards.
- Collaborating on full-stack projects from planning to deployment, emphasizing clean code, maintainability, and robust testing.

TEACHING/MENTORING EXPERIENCE

Undergraduate Teaching Assistant   **Jan 2023 - May 2023**
- Mentored students in C programming and algorithmic thinking, boosting class-wide proficiency and engagement.
- Developed lab assignments that balanced theory with practical problem-solving for ~60 students across 3 sections.

LEADERSHIP/COMMUNITY OUTREACH EXPERIENCE

Alpha Phi Omega - *Alpha Gamma Chapter (Rush- Co Chair)*   **Aug 2023 - Dec 2025**
- Organized service events and community outreach, training new members to create engagement in volunteerism.
- Encouraged a culture of collaboration and philanthropy, guiding recruits through their journey to active APO membership.

RELEVANT SKILLS

Programming Languages: Python, Java, C, C++, C#, JavaScript, TypeScript, SQL
Frameworks & Libraries: React.js, React Native, Next.js, Angular, Express (Node.js), .NET MVC, OpenCV, YOLO, JUnit, Maven
Databases: MongoDB, DynamoDB, MySQL, PostgreSQL, NoSQL (document & key-value)
Cloud & DevOps: AWS, AppSync, Azure DevOps, Docker, Kubernetes, Kafka, Git/GitHub, CI/CD pipelines, Linux/Unix
Tools & Platforms: Ghidra, BinDiff, REST & GraphQL APIs, Excel, Jira, CRM systems, HPC clusters
Development Practices: Agile/Scrum, Object-Oriented Programming, Test-Driven Development, Software Development Life Cycle, Design Patterns (MVC, Singleton), Multi-threaded Programming, Data Structures & Algorithms, Machine Learning, Computer Vision, SaaS architectures, SOAP web services, Quality assurance & debugging
Soft Skills: Problem-solving, Analytical thinking, Verbal & written communication, Team leadership & collaboration, Strategic planning, Relationship management, Troubleshooting, Adaptability