

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: 3.75

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

Field-Agent REST API (Spring Boot)

Apr 2025 - May 2025

End-to-end Spring Boot application that tracks agents, clearances, and aliases for a fictional intelligence agency.

- Built full Java stack - data mappers with JdbcTemplate, service layer with domain validation, and REST controllers exposing 20+ endpoints for agents, clearances, and aliases.
- Designed the relational model and the MySQL DDL plus an idempotent Known-Good-State seeding procedure.
- Wrote 50+ unit and integration tests (JUnit 5, Mockito, MockMvc) achieving 90 % coverage; automated database resets with the seeding procedure in order to minimize test runtime.
- Delivered a comprehensive REST-Client (.http) suite demonstrating CRUD flows, validation failures, and error responses.

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.

MERN Stack Web App - 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.

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), OpenCV, YOLO, JUnit, Maven

Databases: MongoDB, DynamoDB, MySQL, JDBC, Spring Boot, Spring MVC

Cloud & DevOps: AWS, AppSync, Azure DevOps, Docker, Kubernetes, Kafka, Git/GitHub, CI/CD pipelines, Linux/Unix

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

Soft Skills: Problem-solving, Analytical thinking, Verbal & written communication, Team leadership & collaboration, Strategic planning, Relationship management, Troubleshooting, Adaptability