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 that simplifies the process of interacting with a GraphQL API, in order to reduce development time for the team.
- 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.
- Collaborated with coworkers in Agile/Scrum environments to efficiently progress on work deliverables.

Cognition and Learning Lab Programmer   **May 2023 - Jan 1 2025**
- Deployed tests for data collection used by researchers and parsed data in JSON format to increase data collection efficiency.
- Performed software testing and maintenance for 5 current repositories and database servers to significantly reduce downtime.

Machine Learning in Motion   **Jan 2024 - Aug 2024**
Research Assistant
- Lead summer research team in continuing Machine Learning in Motion project in order for it to be ready for demonstration in August 2024.
- Researched and integrated existing neural networks and models such as YOLO and OpenCv in order to understand and develop a system that can better detect bodies in motion as well as estimate their depth from the camera.
- Oversaw project goals and cross-functional team member responsibilities to make sure the project made consistent progress.

PROJECTS

LLM Driven Vulnerability Detection System - Horizon3.ai   **Aug 2024 - Dec 2024**
- Collaborating with Cybersecurity company Horizon3.ai to create an automated vulnerability detection pipeline that trains an LLM to be able to optimize the process of finding bugs and security risks in code.
- Developing binary differentiation security module that leverages analysis tools such as Ghidra and BinDiff to identify differences in binary files and feed the reports to language models for training.
- Coordinated meetings as Scrum Master to make sure the software team is on track meeting deliverables for the pipeline.

Recipe Remix   **Aug 2023 - Dec 2023**
- Created a full stack recipe software project in order to make cooking simpler and faster for college students.
- Led 6 person collaborative effort using React.js and MongoDB to create a streamlined and efficient development process.
- Developed backlogs, user stories, and project goals each sprint in order to streamline each sprint.
- Implemented react/node/express elements and integrated Google and Recipe REST APIs into the project to create a system that was efficient and simple to work with.

NASA SUITS Challenge   **Aug 2024 - Current**
- Writing system design proposal for NASA's 2024 SUITS Challenge to compete alongside other teams.
- Collaborating alongside team members to develop software for both rover and spacesuit technologies.
- Learning technologies such as Unity, and object detection methods to design software that detects hazards in a rover's path.

TEACHING/MENTORING EXPERIENCE

Undergraduate Teaching Assistant   **Jan 2023 - May 2023**
- Guided students towards higher understanding of course content by asking questions that encourage students to work through problems, in order to enhance students problem solving skills.
- Created C programming labs to ensure course content is balanced yet challenging for 3 classes of 20 students.

LEADERSHIP/COMMUNITY OUTREACH EXPERIENCE

Alpha Phi Omega - Alpha Gamma Chapter (Rush- Co Chair)   **Aug 2023 - Dec 2025**
- Training new members in the program by befriending them and guiding them towards doing community service in order to help them become active APO members.
- Organizing service events and community outreach for new members to give them a sense of what our organization is about.

RELEVANT SKILLS

Machine Learning, Data Structures & Algorithms, HTML, CSS, JavaScript, Java, C, C++, MongoDB, React.js, React Native, API development, Express, TypeScript, full stack, NoSQL, MySQL, Python, MERN, Git, Linux/Unix, Front-End, Back-End, AWS, web development, C#, XML, systems programming, Operating Systems, Kubernetes, Apache Kafka, computer vision, websockets, containerization, full-stack, SDLC, CloudWatch, SOAP, PowerShell, PostgreSQL, SQL, HPC, multi-threaded programming