John "Jack" Lee

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EDUCATION

Embry-Riddle Aeronautical University — Daytona Beach, FL
Bachelor of Science in Computer Science, Cybersecurity Engineering Concentration — *Expected May 2025*
Dean's List — *3.58 GPA*

WORK EXPERIENCE

Research and Development Intern — May 2024 - Present
Keysight Technologies — *Remote*
- Developing requirements for the US Cyber Trust Mark with the Consumer Technology Association
- Created an internal tool to generate software plugin boilerplate, saving valuable development time
- Developed a web application using a Large Language Model to evaluate documents against given requirements

Cybersecurity Engineering Lab Manager — January 2024 - Present
Embry-Riddle Aeronautical University — *Daytona Beach, FL*
- Maintain and configure an air-gapped attack and defense laboratory for instructional and research use
- Manage virtual machines of diverse operating systems for penetration testing classes and Capture The Flag (CTF) competitions
- Created a scoreboard website that integrates with a database and scoring engine for an in-house CTF competition

Product Management Intern — May - August 2023
Keysight Technologies — *Austin, TX*
- Configured a lab network with multiple virtual machines and devices across wired and wireless interfaces
- Wrote public-facing product documentation regarding 5G O-RAN network testing and IoT security testing
- Collaborated with a team of security researchers to develop a product demonstration shown at DEF CON 31

IoT Security Research Intern — May - August 2022
Keysight Technologies — *Remote*
- Performed fuzz testing against TCP/IP and Bluetooth interfaces to find implementation flaws in IoT devices
- Discovered and disclosed a Bluetooth vulnerability in a leading smart doorbell causing the video feed to stop
- Created video demonstrations of vulnerability testing for marketing and sales use

PROJECTS

VANTAGE Senior Design Project | 4-person team | *Python, Julia, Git, Scrum, Jira* — August 2024 - Present
- Document and design a simulation environment for autonomous Uncrewed Aerial Systems research
- Integrate multiple dependencies using Python and Julia for a cohesive user experience across a UI and API
- Created documentation and shell scripts to assist with software installation

AES-256 Implementation | 2-person team | *Rust, Test-Driven Development, Git, Scrum* — March 2023
- Developed decryption and key expansion code based on technical specifications such as FIPS 197
- Followed Test-Driven Development principles by writing unit tests for each encryption and decryption step
- Planned division of labor and led scrum meetings to discuss sprint progress

FitSage Fitness App | 4-person team | *Dart, Flutter, SQL, Git, Scrum* — January - May 2023
- Developed a mobile app for fitness management with OCR functionality for scanning Nutrition Facts labels
- Wrote detailed documentation before development to assist the team and refine the application design
- Implemented UI views based on wireframes, concept art, and documentation to meet the software requirements

TECHNICAL SKILLS

Languages: Rust, Java, C, C++ Go, Python, Julia, JavaScript, SQL, HTML, CSS, Dart, Gleam, Bash, TLA+
Frameworks: Flutter, Django, Tauri, Dioxus, Metasploit
Operating Systems: Linux (Debian-based, RHEL-based, Gentoo, Arch), MacOS, Windows
Developer Tools: Git, GitHub Actions, VS Code, Zed, Visual Studio, CLion, IntelliJ, Eclipse, Vim, Markdown, LaTeX
IT Skills: VMware ESXi/Vsphere, Active Directory Domain Services, Shell competence, Wireshark, Nmap, OSI Model
Natural Languages: English (Native Proficiency), Spanish (Working Proficiency Reading-Writing)
Honors: ACMSE Programming Competition Second Place (2024), Dean's List, CyberPatriot First in State (2019)
Organizations and Clubs: ACM, IEEE, AI Club, Cybersecurity Club, WIKD 102.5 Radio Station