

# Jeremiah Webb

## Education

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### Embry-Riddle Aeronautical University

Daytona Beach, FL

Master of Science, Computer Science, concentration of cybersecurity

May 2025

Bachelor of Science, Computer Science, concentration of cybersecurity, GPA: 3.61, Cum Laude

May 2024

Minor, Electrical & Computer Engineering, GPA: 3.73

May 2024

## Experience

### Cybersecurity Lab Manager & Teacher Assistant

September 2021 – Present

Embry-Riddle Aeronautical University

Daytona Beach, FL

- Responsible for updating and maintaining the university's unique air-gapped cybersecurity computer lab.
- Currently setting up and installing Proxmox & SmartDeploy software to expedite the process of updating operating systems and software for 30 lab computers, resulting in a 300% reduction in lab downtime.
- Actively assisting university professors with cyber forensics, Kali Linux, Cryptography, and penetration testing classes. Responsibilities include conducting weekly ethical hacking tutoring hours, and creating assignments.

### Specialist Solutions Architect Intern

May – August 2022, May – August 2023, June – August 2024

Amazon Web Services

Seattle, WA, Santa Clara, CA

- Implemented QR Code scanning sign in into the AWS Cognito Service. Developed AWS Lambda functions (Go, Python) and REST API Gateway for user group authentication with Cognito in conjunction with a React web client and a NoSQL DynamoDB database to track user information.
- Built a serverless HIPAA-compliant data ingestion pipeline utilizing Lambda (Rust), Amazon Comprehend, Transcribe, and S3 to transcribe and sanitize terabytes of doctor visit audio, removing PHI and PII. Built a web client file management system using AWS Amplify and React.
- Built a cloud security and infrastructure auditing chatbot using AWS Bedrock Generation AI (Claude 3.5 Sonnet) with custom prompts. Data ingestion via Lambda (Rust) and API Gateway, and S3 for AWS security service logs and VMware logs. Developed a React web client on AWS Amplify for seamless downloading, uploading, and interaction with the chatbot.

## Projects

### Project Stocky | Python, Java, REST, NumPy, YFinance, MariaDB, SQL

- Developed a full stack application with a user-friendly GUI, offering real-time stock market insights by analyzing technical indicators and determining bullish, bearish, or neutral sentiments for short and long-term investment strategies.
- Utilized MariaDB database to efficiently manage and store raw stock data, ensuring data integrity and retrieval performance. Integrated YFinance and twelveData REST APIs to source and update stock data, enhancing the application's accuracy and reliability.

### White Hat Cybersecurity Eagles Captain | Git, Kali Linux, Pentest, cross-site scripting, Ida Pro, AWS

- Capture the Flag Captain: Instruct and teach cross-site scripting, Metasploit framework, active directory security, and man in the middle attacks in Kali Linux, prepare White Hat Cybersecurity Eagles for NCAE CyberGames.
- Team won third place in the state of Florida, help set up training labs for new team members in HacktheBox.

### CyberTool Analysis Tool | Git, Rust, AWS, Lambda, Technical Lead, Linux, NoSQL, REST, React

- Tech lead for 6 student team in class project "CyberTool". Worked with Embry-Riddle faculty to implement a mechanism and product for infrastructure security viability analysis of over 100 aerospace industrial recognized cybersecurity tools.
- Developed automatic comparison PDF report of cybersecurity tools for user in Rust leveraging AWS Lambda, API Gateway. Assisted with project management, software design and requirement documentation.

## Technical Skills

**Languages:** Java, Python, C/C++, SQL, (Postgres), JavaScript, HTML/CSS, R, GraphQL, Bash, Go, Arm Assembly, Rust

**Frameworks & Libraries:** Pandas, NumPy, Matplotlib, React, Node.js, WordPress, jQuery, Django, AWS SDK

**Certifications:** AWS Certified Cloud Practitioner, AWS Certified Solutions Architect – Associate, AWS Certified Developer – Associate, AWS Certified Security - Specialty

**Tools:** Git, Arch Linux, Docker, AWS (Comprehend, EC2, DynamoDB, VPC, Cognito, S3, IAM), CMake, ProxMox, Windows Active Directory, Cargo, CloudFormation