REECE BAILEY

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EDUCATION

California State University, Fullerton

Bachelor of Science in Computer Science

August 2020 - May 2025

Fullerton, CA

EXPERIENCE

Undergraduate Research Contributor

May 2023 – July 2023

California State University, Fullerton

Fullerton, CA

- Engaged in data preprocessing and augmentation utilizing libraries like NumPy, pandas, Scikit-learn, and more, ensuring optimal input for AI models
- Designed and developed custom tools for data analysis, paving the way for deeper insights and more accurate model evaluations
- Regularly presented findings and progress to academic peers and faculty, highlighting the implications and potential applications of our research

Big Data Analyst Project

February 2024 - June 2024

ISEP School of Digital Engineers

Paris, France

- Developed a comprehensive data pipeline using SQL to manage and analyze large datasets from multiple sources, highlighting my proficiency in data engineering.
- Implemented advanced SQL queries to clean, transform, and aggregate data, showcasing my ability to handle complex data manipulation tasks.
- Utilized data visualization tools like Tableau to present insights derived from SQL analyses, emphasizing my skills in data interpretation and presentation.
- Collaborated with a team to optimize database performance, ensuring efficient data retrieval and storage for large-scale applications.

PROJECTS

Security Enhancement for Cloud-Based Systems | AWS, Python, Linux

April 2023 – Present

- Designed a Python-based security automation tool to monitor and enforce security policies in AWS cloud environments.
- Implemented Linux Bash scripts for system hardening and configuration checks, ensuring compliance with best practices.

Rolodex Hash Table | C++, Makefile, Git

January 2023 - February 2023

- Architected the hash table with an emphasis on load factors and rehashing strategies to ensure optimal performance during high-volume operations
- Implemented linked lists for collision resolution, providing effective handling of collisions and maintaining data integrity
- Developed intuitive command-line interfaces for users to input, search, modify, and delete contact records
- Integrated efficient hashing algorithms to swiftly calculate indexes for storing and retrieving records, maximizing search speed

LA Hacks Hackathon - Security Automation Project | *Python, Linux, Git, MITRE ATT&CK Framework*

April 2023

- Developed a security automation script to identify and mitigate threats mapped to the MITRE ATT&CK framework.
- Applied Python for scripting attack simulations on Linux platforms, enhancing system defenses through proactive testing.

EXTRACURRICULAR ACTIVITIES

President, Blockchain Club

Aug. 2023 - Present

California State University, Fullerton

Fullerton, CA

- Led and managed 70 club members in bi-weekly club socials.
- Achieved a 40 percent membership growth during my tenure, expanding the club from 50 to 70 active members.
- Partnered with Harvard University peers to merge the Blockchain Club and Artificial Intelligence Club, fostering interdisciplinary innovation.

TECHNICAL SKILLS

Languages: Python, C/C++, JavaScript, TypeScript, SQL (Postgres), HTML/CSS, Solidity, Rust

Frameworks: React, Node.js, Flask, WordPress, Hardhat, FastAPI

Developer Tools: AWS, Git, Docker, Google Cloud Platform, VS Code, Visual Studio, PyCharm

Libraries: pandas, NumPy, Matplotlib, Ethers.js, OpenZeppelin