# REECE BAILEY

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#### **EDUCATION**

# **California State University, Fullerton**

August 2021 - May 2026

Bachelor of Science in Computer Science, Minor in CyberSecurity

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 Apprentice**

Feb. 2024 - June. 2024

ISEP School of Digital Engineers

Paris, France

- Designed and implemented an automated data pipeline using SQL and Python, optimizing data processing for large-scale applications.
- Developed unit tests and automated testing scripts to ensure data accuracy, consistency, and performance across multiple stages of the data pipeline.
- Collaborated with a cross-functional team to enhance database performance, ensuring efficient and reliable data retrieval for mission-critical systems.
- Contributed to the optimization of database structures, improving the overall speed and scalability of large-scale data applications.

#### **PROJECTS**

# **Rolodex Hash Table** | C++, Makefile, Git

Jan. 2023 - Feb. 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

#### **Blockchain Hot Potato Game** | *Javascript, Next.js, Mongodb, Git, Ethers*

April 2023 – Present

- Designed and implemented the game logic in Solidity, ensuring transparent and tamper-proof gameplay on the Ethereum blockchain.
- Utilized Next.js to create an interactive and responsive web interface, allowing users to participate in the game, view the current holder of the "potato," and monitor the countdown timer in real-time
- Developed a leaderboard system using MongoDB, storing and displaying top players based on game wins, ensuring competitive and engaging gameplay.

# **EXTRACURRICULAR ACTIVITIES**

## **President, Blockchain Club**

Aug. 2023 – Present

California State University, Fullerton

Fullerton, CA

- Led and managed 70 club members in bi-weekly developer smart contract workshops.
- Achieved a 40 percent membership growth during my tenure, expanding the club from 50 to 70 active members.
- Partnered our club with Dorm DAO, a student run organization that focuses on cryptocurrency investment pitches.

#### **TECHNICAL SKILLS**

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

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

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

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