John Butterfield

jpmcb141@gmail.com ❖ (336) 749-5234 ❖ Raleigh, NC

❖linkedin.com/in/1-john-butterfield/

EDUCATION

North Carolina State University, College of Engineering   **Expected Graduation: December, 2025**

Bachelors of Science, Computer Science   *Raleigh, NC*

- **GPA: 3.7/4.0**
- **Dean's List:** 2021 Fall, 2022 Spring, 2022 Fall, and 2023 Fall, 2025 Spring Semesters
- **Relevant Coursework:** Java, C, Python, Data Structures and Algorithms, Linear Programming, Operating Systems, Computer Networking, Intro to IoT

TECHNICAL SKILLS

- **Programming Languages:** Java, Python, C, HTML/CSS, JavaScript, R, Julia, Solidity, SQL, Bash
- **Developer Tools:** GitHub, Git, Linux, Docker, AWS (S3, Lambda, IoT Core), MySQL, MQTT, HardHat, MetaMask, React

PROGRAMMING PROJECTS

Portfolio Website | *React, TypeScript*

- Designed and deployed a dynamic, responsive personal portfolio website using React to showcase technical capabilities and project work.
- Deployed at https://john-dev-portfolio.vercel.app/

FreeFlow Forum | *React, Python, SQL, Solidity, Blockchain*

- Lead the development of a decentralized crowdfunding platform on the Ethereum blockchain, enabling transparent community-driven funding.
- Built Solidity smart contracts for tokenomics and governance, integrating with a React front-end and Python/SQL backend.

Raspberry Pi Cloud Photo Frame | *Python, AWS, MQTT, Raspberry Pi*

- End-to-end IoT photo sharing system using Raspberry Pi, MQTT, and AWS (S3, Lambda, IoT Core).
- Enabled real-time cloud sync and remote photo management via a custom web app.

Memory Encryption and Decryption | *C*

- Implemented the LUCIFER 128-bit block-cipher in C, for secure handling of text/binary files.
- Focused on cryptographic principles and efficient memory handling for data protection.

Minesweeper | *Java, Swing*

- Developed a fully graphical Minesweeper clone in Java using Swing, featuring a custom board generation algorithm, recursive bomb detection, and persistent score tracking.

EXPERIENCE

FreeFlow Networks | Raleigh, NC   **January 2025 - May 2025**

Web-3 Developer Intern

- Designed, engineered and deployed blockchain-based funding solutions with transparent voting and staking mechanics on Ethereum blockchain.
- Coordinated with front-end and back-end teams to integrate blockchain functionalities, ensuring a smooth user experience and streamlined development workflows.