

# ALBASHIR ALI

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## Education

**University of Colorado Boulder - B.S Computer Science**

**May 2025**

*Business Minor - Engineering Leadership Certificate(2024)*

*Boulder, Colorado*

## Technical Skills & Clearances

**Clearance:**Top Secret level security clearance

**Operating Systems:** Mac OS, Windows, Arduino, Raspberry Pi, Red Hat Enterprise Linux, Unix

**Programming Languages:** C, C++, Latex, Python, Assembly, Java, JavaScript, HTML, CSS, SQL, Scala

**Developer Tools:** GitHub, VS Code, Jupyterlab, Bootstrap, Docker, Postman, Qt Creator

**System Engineering Tools :** Cameo Systems Modeler, Doors, Microsoft Office

## Relevant Coursework

- |                        |                       |                        |                           |
|------------------------|-----------------------|------------------------|---------------------------|
| • Data Structures      | • Product Development | • Accounting & Finance | • Artificial Intelligence |
| • Software Development | • Data Science        | • Operating Systems    | • Network Systems         |

## Work Experience

**Northrop Grumman**

**May 2023 - August 2024**

*Software Engineer Intern*

*Redondo Beach, CA*

- Conducted multidisciplinary research and collaborated with system engineers in the design and development of electronic data processing systems by updating TRD requirements and refining sequence, class, and UML package diagrams.
- Utilized SQL, Java, and bash scripting to design and implement efficient algorithms, enhancing program functionality, performance, and access for cross-functional teams.
- Implemented J Unit and SonarQube to ensure code reliability,performance, and continuous code quality inspection.
- Conducted code reviews and improved user interface descriptions.

## Projects

**College MindSpace | Founder**

**December 2023 - Present**

- Led a cross-functional team in the development of a diverse content library, including instructional videos, interactive coding projects, and educational resources in partnership with renowned educational platforms.
- Developed and implemented a comprehensive analytics framework to measure user engagement, learning outcomes, and overall project impact, driving continuous improvement and refinement of platform features.
- Spearheaded the integration of AI-driven essay editing tools and personalized learning algorithms, significantly enhancing the platform's capability to offer customized educational support.

**Reliable UDP File Transfer System (RuFTP) | Personal Project**

**February 2024**

- Implemented the Go-Back-N ARQ protocol, enhancing throughput by allowing multiple packets in flight, thus optimizing the use of network bandwidth.
- Ensured the application's compatibility across different platforms by adhering to POSIX standards, making it runnable on standard Ubuntu VMs without modifications.
- Implemented core FTP operations such as file upload, download, delete, and directory listing using UDP sockets, ensuring functionality similar to traditional FTP services.

**Mock Cryptocurrency | Personal Project**

**April 2022**

- Implemented a rudimentary version of the block chain that mines a replica cryptocurrency.
- Created functions that add transactions to a defined user after checking pending transactions validity using times stamps, the number of 0's in a hash value, and the previous hash.

## Leadership

**National Society of Black Engineers (NSBE)**

**April 2022 – Present**

*Rocky Mountain Zone chair (Regional Board)*

*205 Dangerfield Road, Alexandria, Virginia*

- Oversee 14 NSBE chapters within zone 6, providing guidance on securing funding and best leadership practice.
- Coordinated large scale events, including FRC with 3000 attendees and National annual convention with over 20000 attendees.

*Senator*

*University of Colorado Boulder*

- Engaged in the legislative process, voting on critical issues including budget allocations, organizational policies, and strategic initiatives to drive NSBE's mission forward.
- Allocated a forty thousand budget for University of Colorado Boulder chapter, ensuring funds were distributed effectively to support the organization's goals and initiatives.