# BOBBY WHITEHEAD

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# SUMMARY OF QUALIFICATIONS

A software engineer with knowledge of Java, JavaScript, C, and Python through individual projects and multiple years of software development experience through internship programs. Currently studying computer science and mathematics at Virginia Tech, while researching advanced cryptography techniques through the lens of math and computer science. I am seeking a full-time software engineering role, ideally focused on backend systems and data management, data analysis, or mathematical computation.

#### **EXPERIENCE**

#### Research Fellowship

Researcher of Cryptography and Computer Science

Blacksburg, Virginia January 2024 - Present

- Studied the poset of binary CSS-T quantum codes and cyclic codes which deals with the reliance
  of quantum computing and its defense against the adverse impact of noise and decoherence.
- Utilized Python and Magma to simulate the various theorems and track their efficiency in guarding quantum computing from cyber attacks.
- Meets weekly with other math and computer science majors to discuss additional developments in research and continue to work toward publishing a research paper with our findings.

AEi Systems

Software Engineering Intern

Inglewood, California July 2022 - Novemeber 2023

- Worked on the development and implementation of a Python script designed to handle the analysis of large data sets and the creation of downloadable histogram and probability graphs.
- Studied excel automation through Python, including advanced data analysis.
- Used HTML and CSS to build and manage a web-app for easy access and use of the Python script.

### Silicon Stem Academy

Denver, Colorado Summers of 2018 - 2021

Senior Counselor

• Taught basic and advanced Java, Java Script, CAD programs, and Python to students aged 10 to 18 years old.

#### **EDUCATION**

Virginia Tech

2021 - Present

Bachelors of Science in Computer Science, Mathematics (Double Major) Expected Graduation, May 2025 3.93 GPA

Clubs and Organizations:

• Phi Delta Theta Fraternity
Served as the Treasurer in 2023, managing an operating budget of \$150,000.

## SKILLS AND INTERESTS

Skills Java, C, Python, MATLAB, SOLIDWORKS, Linux, LaTex, Technical Writing,

Google Workspace, Microsoft Office, Computer Building

Additional Interests Aviation, Cyber Security, Website Design, Graphic Design, Fitness,

SCUBA Diving, Skiing.