

# Emma Choate

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**Active DoD Secret Security Clearance**

## EXPERIENCE

### **Junior Software Integration Engineer**, Crossflow Technologies - *Huntsville, AL*

June 2023 - Present

- Develop new software solutions to integrate multiple simulations into a seamless deliverable product
- Update and maintain previous code to meet higher standards of fidelity and security
- Present and demonstrate new findings and solutions directly to the government customer

### **Data Management Work Study**, Birmingham-Southern College - *Birmingham, AL*

September 2022 - December 2022

- Support Career Services Office by helping manage employer database
- Perform statistical analysis on survey data of recent graduates to help create a strategy to promote career development across campus

### **Engineering Intern**, Crossflow Technologies- *Huntsville, AL*

May 2022- August 2022

- Created Portable Electronic Device (PED) detecting system for the purpose of preventing unauthorized access of Wi-Fi or Bluetooth enabled devices into DoD Classified Labs
- Developed software designed to monitor Wi-Fi channels and capture packets of information from devices within a radius of detection predetermined by project scope
- Built a function that cleaned and filtered data from CSVs for necessary information needed for data logging
- Spearheaded research, scheduling, planning and final documentation over a multi-disciplinary team
- Communicated project progress and findings to the government customer to ensure that scope and requirements were met
- Provided a functional prototype that detected with a success rate of 92%

### **Data Science Intern**, Crossflow Technologies- *Huntsville, AL/Remote*

February 2022- May 2022

- Expanded an existing software application for improved data/information storage via HDF5
- Identified and requested updates to software that increased its usage and capabilities
- Extracted data from GUI, created functions to clean and manipulate data, then exported to an easy-to-navigate HDF5 file

## Education

### **Birmingham-Southern College (BSC), Graduated Cum Laude May 2023** - *Birmingham, AL*

#### **Bachelor of Science in Mathematics, Data Science Minor**

- Dean's List Fall 2021, Spring and Fall 2022
- Kappa Mu Epsilon Mathematics Honor Society Member
- Davis Scholarship in Mathematics Recipient
  - Selected based on GPA in all major courses and by department faculty
- Women's Soccer Southern Athletic Association Academic Honor Roll 2018-2019 Season

### **Flatiron School** - *Birmingham, AL*

May 2021 - August 2021

- Completed 12-week accelerated Data Science Bootcamp
- Skills Acquired: Python, Data Cleaning, Scientific Computing and Quantitative Methods, Machine Learning Fundamentals