# William Andrews

www.linkedin.com/in/william-andrews-92b5a4291 | wtandrews@wm.edu | 703-501-4428 | Alexandria, Virginia Personal Website: https://william-thomas-andrews.github.io/ GitHub: https://github.com/William-Thomas-Andrews

#### PROFESSIONAL SUMMARY

William & Mary student with a passion for math and computer science, currently advancing proficiency in C/C++, Java, and Python while applying advanced mathematics in problem-solving.

# **WORK EXPERIENCE & PROJECTS**

## Linear Algebra Library (C++)

- Created a basic Linear Algebra Library that supports custom type matrix creation and standard matrix operations.
- Supports arithmetic (for arithmetic-typed matrices), comparison, and assignment operators, along with many more features.

### Modular Arithmetic Calculator (C++)

- Implemented a modular arithmetic calculator that performs modulus operations such as: 39 mod(10) ≡ 9.
- It supports comparison, arithmetic, assignment, and many more operators.
- Implemented custom GCD and LCM functions.

#### PDF Scraping Program (Python)

- Worked with the small startup company Compliancy to develop a concurrent web-scraping algorithm in a program that checks
  whether certain roofing permit pdfs in specific Florida municipality websites have changed from old inputs. Deployed
  parallelized requests in a recursive algorithm for website crawling.
- Aimed at helping Compliancy provide updated roofing permits to roofers more efficiently.

## Stack-Based Postfix Expression Evaluator with GUI (Java)

- Implemented a postfix expression calculator.
- Calculates the answer based on the expression given in the GUI through a custom stack class.

### YouTube Judicial Comment Scraper (Python)

- Worked in a DisinfoLab W&M team to analyze public opinion about recent Mexican judicial reforms.
- Used the YouTube API in a Python program to scrape comments and associated data from selected videos.
- Used sentiment analysis and presented findings in a DisinfoLab W&M Op-Ed piece that is set to be published.

### **Auto-Enrollment-Checker (Python)**

- Developed a program to check course availability on my registration site every 5 minutes.
- If a spot opens up, the program sends me a notification through the Telegram API.
- Used this when a desired class was full and I wanted to know as soon as possible when a spot was open.

# **EDUCATION**

# The College of William & Mary | Williamsburg, Virginia

Bachelor of Science | 1st Major: Computer Science | 2nd Major: Mathematics

Awards: Dean's List CS GPA: 4.00 | Math GPA: 3.91 | Total GPA: 3.84

Woodberry Forest School | Woodberry Forest, Virginia

Fall 2019 - Spring 2023

**Expected Spring 2027** 

High School Diploma

Awards: Walker Scholar, Honor Roll, Varsity Golf

Total GPA: 4.09

### **RELEVANT COURSES**

Software Development   Intermediate Linear Algebra   Principles of Prog. Languages   Algorithms	W&M	Spring 2025
Advanced Multivariable Calculus   Data Structures   Discrete Math   Computer Organization	W&M	Fall 2024
Calculus II   Linear Algebra   Directed Research in Data Science	W&M	Summer 2024

## **WORK HISTORY**

Software Engineer Intern | DisinfoLab W&M

Software Engineer Intern | Compliancy

Summer 2024

Golf Caddie | Burning Tree Golf Club

Summer 2023

Golf Counselor | Hogneck Golf Course

Summers of 2021 & 2022

Organizations: DisinfoLab W&M, Club Basketball.

Software Skills: C/C++, Python, Java.