Madison Shea London

+1 (301) 412 4794 • maddie.london@richmond.edu • github.com/madisonlondon • madisonlondon.github.io

EDUCATION

University of Richmond, Richmond, Virginia · September 2017 – May 2021

Bachelor of Arts, *Magna Cum Laude*

Double Major in Computer Science and Italian Studies (Departmental Honors Program), Minor in Linguistics

Full-Year Honors Thesis: "Due Sistemi Universitari a confronto: L'Università degli Studi di Verona e la University of Richmond"

Cumulative GPA: 3.76/4.00

- **Honors**: All As Distinction (Fall 2017, Spring 2020, Fall 2020, Spring 2021), All-AKPsi Academic Team '20-21, Omicron Delta Kappa, Phi Eta Sigma, Phi Sigma Iota, Dean's List (Fall 2017, Spring 2018, Spring 2019, Fall 2020, Spring 2021)
- **Campus Involvement & Leadership:** Alpha Kappa Psi Business Fraternity (Vice President of Membership), Italian Language and Culture Club (Public Relations Representative), Peer Academic Skills Tutor, Phi Sigma Iota Foreign Language and Literature Honor Society (President, Vice President), UR Hillel, Women's Club Volleyball (Vice President)
- **Relevant Courses**: Algorithms, Calculus II, Computer Organization, Computer Security, Cybersecurity for Business, Data Structures, Database Systems, Design & Implementation of Programming Languages, Discrete Structures, Linear Algebra

Università degli Studi di Verona, Verona, Italy · September 2019 – December 2019

EXPERIENCE

William & Mary Geospatial Evaluation and Observation Lab, Williamsburg, Virginia · · · · · · · · · October 2020 – Present

Commonwealth Cyber Initiative Fellow

- Build prototype convolutional neural networks with Keras based on data collected in near-real-time from phone applications
- Work directly with practitioners in the intelligence community and from silicon valley on a project examining 'data poisoning'
- Receive training on creating robust algorithms for data production, focusing on estimating road quality from satellite data

University of Richmond, Richmond, Virginia · January 2018 – Present

Teaching Assistant

- Lead, supervise, and plan drill classes for undergraduate students in intensive beginner and intermediate Italian courses
- Correspond with lead professor to formulate new activities for each lesson, targeting necessary areas of improvement
- Practice speaking, reading, and writing skills to prepare and excite students for advanced classes and study abroad programs

Genworth Financial, Raleigh, North Carolina · May 2020 – December 2020

Computer Vision Intern

- Developed a **Python** script with AWS Textract and Comprehend to withdraw sensitive data and precisely classify documents
- Updated FCRA letters in **Visual Basic** in order to drive down borrower calls and improve lender satisfaction
- Supported the MI Pricing Team by writing scripts with tabula-py and pandas to organize data from rate quote reports

Facet Wealth, Baltimore, Maryland · May 2019 – January 2020

Software Engineer Intern

- Applied business process knowledge to fix bugs and create automated tests at the UI (**HTML/JS**) and API (**Go/SQL**) sides
- Collaborated with the engineering and product team to participate in the full development life cycle of a web feature
- Wrote software documentation with Atlassian to minimize workload, create consistency, and improve company branding

PROJECTS

NASA Grant: Forest Disturbances and Ecosystem Services · August 2020 – December 2020

- Used **Python** and **Javascript** in a Tethys web app to support research on the Amazon watershed and indigenous territories

Kruskal's Algorithm · April 2020

- Using **Java's** Swing toolkit, this program implements Kruskal's algorithm to calculate the minimum spanning tree of a graph

Smith–Waterman Nucleotide Alignment · February 2020

- This **Java** program determines the optimal alignment of two sequences based on gap penalty and weight matrix values

TECHNICAL SKILLS

- **Languages**: Java, C++, JavaScript, Python, SQL, HTML, CSS, C, Visual Basic, Go, Lisp/Scheme, Smalltalk, MIPS Assembly, Fortran 77, Ada
- **Technologies**: AWS Textract, AWS Comprehend, Keras, Selenium WebDriver, Tableau, Git, WordPress, BrowserStack

ACCOMPLISHMENTS & AWARDS

- Outstanding Senior Award from the University of Richmond's Languages, Literatures, and Cultures Department
- QCER B2 Italian Proficiency (Upper Intermediate - Independent Competence)
- 2019 Capital Region Celebration of Women in Computing Conference (CAPWIC) Scholarship Recipient