

Andrew M. Broughton

andrewmbroughton@gmail.com | 571-233-0132 | andrewbroughtonportfolio.netlify.app

Education

University of Virginia, School of Engineering & Applied Science

Charlottesville, VA

Bachelor of Science in Computer Science

Expected May 2026

- Minors in Business & Data Science
- GPA: 4.0/4.0

Experience

Undergraduate Teaching Assistant, University of Virginia – Charlottesville, VA

January 2023 – Present

- Spearheading an innovative educational project, creating 3D printed models that vividly illustrate complex concepts, enhancing students' understanding through tangible and visually engaging learning aids
- Deliver feedback and support to students through grading, in-person office hours, email correspondence, and online discussion forums
- Conduct one-on-one and group tutoring sessions to help students with course material and homework assignments

Engineering Intern, XTEC Incorporated – Reston, VA

May 2023 – August 2023

- Researched, setup, and demonstrated multi-factor authentication solutions, including FIDO2/WebAuthn
- Tested Unified Endpoint Management (Workspace ONE UEM) Derived PKI credentials as well as identity management biometric enrollment platform for enterprise customers
- Supported public and private sector clients by developing and implementing creative client-based solutions across internal teams
- Performed competitive analysis of industry participants to identify key acquisition/partnership opportunities, presenting findings to senior team members

Team Member, Potbelly Sandwich Shop – Ashburn, VA

June 2021 – August 2022

- Collaborated with colleagues to efficiently meet customer needs and contribute exceptional customer service in a high volume quick service restaurant
- Managed daily transactions, calculated nightly sales totals, and followed proper cash handling procedures

Projects

Machine Learning NBA Rookie of the Year Predictor

- Implemented a Ridge Regression model using Python, scikit-Learn, and JupyterLab IDE to predict the 2023-2024 NBA Rookie of the Year winner based on the past 20 years of rookie data
- Employed Python along with Selenium WebDriver & pandas for efficient web scraping & parsing of NBA data
- Conducted exploratory data analysis to gain insights and identify patterns using Matplotlib

Penguin Adventures Game

- Conceptualized and developed a multi-level platforming game built in Python using the Pygame framework
- Conducted thorough testing and debugging to identify and resolve issues, ensuring the game's stability

Personal Portfolio

- Implemented a responsive design using HTML, CSS, and JavaScript to ensure a seamless user experience across various devices and screen sizes

Skills & Relevant Coursework

Skills: Python, Java, C, x86-64 Assembly, HTML, CSS, JavaScript, MATLAB, Git, scikit-learn, pandas

Relevant Coursework: Data Structures & Algorithms, Computer Systems & Organization, Discrete Math & Theory, Software Development Essentials, Linear Algebra

Extracurriculars

Pickleball Club - Social Team Leader; Phi Society Fraternity - Philanthropy Chair; Bowling Club; Chess Club