**Cole** **Bromfield**

Hyattsville, MD, 20781 | (540) 869-1610 | colebromfield@gmail.com

Striving for continuous improvement personally and academically.

**EDUCATION**

**Master of Professional Studies** (Data Science) Anticipated: Dec 2024

*University of Maryland (College Park, MD)*

**Bachelor of Science** (Mathematics) May 2023

*University of Maryland (College Park, MD)*

**Associate of Arts** (General Studies) May 2021

*Frederick Community College (Frederick, MD)*

*Graduated with High Honors*

**SKILLS**

**Expert:** Microsoft Office, Python (incl. NumPy, Pandas, Matplotlib, Seaborn), Data Visualization Techniques, Applied Mathematics (incl. linear algebra, statistics, and probability theory)

**Intermediate:** MATLAB, Java, Machine Learning Techniques, Web Scraping, Data Cleaning, Git

**Basic:** CloudCompare, SQL, R, RegEx Code  
 **EXPERIENCE**

**Modeling and Simulation Intern,** *The MITRE Corporation,* McLean, VA **May 2023 - Present**

Evaluating and presenting the comparative efficacy of two Initial Orbit Determination (IOD) methods used for low-Earth orbit satellites. Writing Python code to properly analyze, store, and visually represent error data from each method, considering how this error changes with various orbital parameters and orbit types. Successfully minimized observation error to the scale of . Developing method to calculate satellite location at any given time via Kalman filters.

**Math Tutor,** *Paper, Inc.* (Remote) **Oct 2022 - Present**

Tutoring students in underserved communities across the United States and Canada via an online, chat-based platform. Guiding them through challenging problems and questions with Socratic questioning and relevant drawings/demonstrations. Often navigating fast-paced environment with multiple students

**Data Science Intern,** *Hexagon US Federal,* Lanham, MD **May 2022 - Jul 2022**

Collaborated with a cross-functional team on Phase II of the ELSA project, a lidar altimetry system utilized by NASA’s Jet Propulsion Laboratory (JPL) in the landing gear of a Europa probe. Processed and analyzed raw data into a user-friendly, easily viewable format using Python code; designed and constructed diagrams of the Real-Time Data Processing system; created user guides for the processed data and code.

**Instructor,** *Mathnasium,* Silver Spring, MD **Jan 2022 – Oct 2022**

Instructed and oversaw students looking to fortify their mathematical skills. Checked work, guided them through the problem solving process, presented feedback, and formulated new methods to explain a concept if they did not understand the first time.

**Full Service Shopper,** *Instacart,* Various Locations **Apr 2020 - Jan 2022**

Operated as an independent contractor delivering groceries to customers through the Instacart app.