

Cole Bromfield

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Striving for continuous improvement personally and academically.

EDUCATION

Master of Professional Studies (Data Science) <i>University of Maryland (College Park, MD)</i>	Anticipated: Dec 2024
Bachelor of Science (Mathematics) <i>University of Maryland (College Park, MD)</i>	May 2023
Associate of Arts (General Studies) <i>Frederick Community College (Frederick, MD)</i> <i>Graduated with High Honors</i>	May 2021

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, Git
Basic: CloudCompare, SQL, R, RegEx Code, HTML, Docker, JavaScript

EXPERIENCE

Modeling and Simulation Intern , <i>The MITRE Corporation</i> , McLean, VA 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 10^{-4} . Developing method to calculate satellite location at any given time via Kalman filters.	May 2023 - Present
Math Tutor , <i>Paper, Inc.</i> (Remote) 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	Oct 2022 - Present
Data Science Intern , <i>Hexagon US Federal</i> , Lanham, MD 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.	May 2022 - Jul 2022
Instructor , <i>Mathnasium</i> , Silver Spring, MD 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.	Jan 2022 – Oct 2022
Full Service Shopper , <i>Instacart</i> , Various Locations Operated as an independent contractor delivering groceries to customers through the Instacart app.	Apr 2020 - Jan 2022