Jackson McBride

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EDUCATION

Columbia University, New York, New York   Expected May 2025
Bachelor of Arts in Data Science
Relevant Coursework: Statistical Machine Learning, Inferential Statistics, Probability Theory, Essential Data Structures, Econometrics, Calculus-Based Statistics

PROFESSIONAL EXPERIENCE

Descartes Labs Government *Data Scientist Intern*   Virtual, June 2023 - August 2023
- Helped to develop a state-of-the-art convolutional neural network to detect vessels not conveying proper AIS locations, enhancing maritime security for the US military
- Compiled and preprocessed a comprehensive training dataset of 60,000 labeled optical satellite images, ensuring high-quality data for model training

Iridium Communications Inc. *Financial Planning and Analysis Intern*   Virginia, May 2022 - August 2022
- Conducted market analysis for satellite personal communications devices, sizing the market at $2 billion with a projected CAGR of 17%, informing strategic decision-making
- Analyzed the satellite emergency beacon system market, documenting 3 million EPIRBs using emergency data, providing insights for product development and resource allocation
- Developed a plan for issuing the company's first-ever dividends, collaborating with senior management to establish a milestone in the company's financial history

Broadtree Partners *Private Equity Analyst Intern*   Virtual, May 2022 - August 2022
- Collaborated with portfolio managers on the acquisition and restructuring of companies with $1-10 million in EBITDA, contributing to the firm's investment strategy
- Constructed sophisticated leveraged buyout models for prospective acquisitions, projecting IRRs of 20%-40%, facilitating data-driven investment decisions

RESEARCH POSITIONS

Columbia University, Department of Economics *Research Assistant*   New York, Sept 2022 - May 2023
- Conducted data collection and management for research on long-term academic outcomes based on student application profiles
- Compiled and organized data from alumni records, mapping professional trajectories to create a dataset used for modeling educational outcomes
- Assisted in building predictive models to analyze the influence of admissions data on future career success

Columbia University, Department of Economics *Research Assistant*   New York, Dec 2021 - Aug 2022
- Contributed to the working paper, "How Do Firms Respond to Gender Quotas? Evidence from California's Senate Bill 826," through data cleaning, processing, and analysis
- Visualized data trends and relationships using Python and R, creating impactful graphs and charts for inclusion in the paper
- Ensured data integrity by performing quality checks and managing large datasets

TECHNICAL SKILLS

Programming Languages: Python, R, SQL, Java, C++
Data Analysis & Visualization: Pandas, NumPy, Matplotlib, Seaborn, ggplot
Machine Learning: TensorFlow, PyTorch, Keras, scikit-learn
General Tools & Technologies: Git, Docker, Kubernetes, AWS, LaTeX, Microsoft Suite

SELECTED WORKS

Poster: Inferring significance of educational factors from random forest classification feature prevelence.
Created an academic poster detailing the use of Random Forest classifiers to predict education outcomes based on non-academic variables. This project was presented at NBER's 2024 Data Science Symposium.

USA Fencing Points Dataset

A standardized JSON dataset containing information on every fencer who competed in U.S. competitions, including their rankings throughout each season from 2001 to 2022.

AI Chatbot: Simulating a Younger Brother and a Pet Cat

Created an AI chatbot to replicate conversational styles of a younger brother and a pet cat, leveraging OpenAI's assistant framework. Deployed the chatbot as an interactive web application using the Streamlit library.