***ALEXANDER J. FLYNN***

Portfolio*:* <https://aflynn0213.github.io/data-science-portfolio/>

**EDUCATION**

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| **Master of Science in Engineering Data Analytics and Statistics**  *Washington University in Saint Louis*  Relevant Courses:   * AI/Machine Learning   + Introduction to Machine Learning and Pattern Classification   + Artificial Intelligence   + Graduate Machine Learning * Applied Mathematics and Statistics   + Random Processes and Kalman Filtering   + Probability and Stochastic Processes   + Linear Dynamic Systems   + Detection/Estimation Theory   + Optimization | **Graduated May 2023**  Saint Louis, MO  **GPA 3.64** |
| **Bachelor of Science in Electrical Engineering**  *University of Missouri - Columbia*  Minors:   * Mathematics * Computer Science | **Graduated May 2019**  Columbia, MO  **ECE GPA: 3.84** |

**RELEVANT EXPERIENCE**

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| **Real Time Software Engineer,** *The Boeing Company,* Berkeley, Missouri   * Developed models and simulations for the warfighter’s Mission Systems' Avionics Systems using C, C++, and Ada in a Linux environment for training devices used by USAF pilots. * Worked on capabilities such as Digital Communication, Navigation, and Electronic Warfare (EW) under Real-Time Operating System (RTOS) constraints. * Developed and utilized an automated regression test suite in C# within Visual Studio to discover defects and ensure efficient integration of new capabilities with legacy systems. * Integrated a Mid-Mission initialization capability for the Mission Management System into the training system, reducing boot-up time from 15 minutes to less than a minute per mission, saving the program hundreds of hours each month. | **July 2020-Present** |
| **Electronic System Design and Analysis Engineer,** *The Boeing Company,* Berkeley, Missouri   * Designed avionic systems by defining and updating system and software requirements to improve system efficiency, testability, and traceability. * Created new and maintained existing avionic systems’ design architectures, which included interface and sequential diagrams along with their associated use-case capability algorithms. | **June 2019-July 2020** |

**Skills**:

* Python, NumPy, scikit-learn, TensorFlow, Matplotlib, Pandas, PyMC, SQL, Artificial Intelligence/Machine Learning, Git, Tableau, AWS, Jenkins, AGILE, Snowflake, Power BI, Dockers, C, C++, C#, PHP, MATLAB, R, Linux/Unix Development, Windows Development, Visual Studio, Robotics Operating System (ROS), JIRA, Confluence, Bitbucket

**Master’s Data Science Capstone Project**:

<https://github.com/aflynn0213/MovieRecommenderForDummies>

* This repository includes all the source code for a movie recommendation engine using collaborative filtering. It employs multiple algorithms such as Singular Value Decomposition (SVD) and Nearest-Neighbors methods, with a webpage interface running on a Flask server.