ALEXANDER J. FLYNN

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

EDUCATION

Master of Science in Engineering Data Analytics and Statistics — **Graduated May 2023**
Washington University in Saint Louis — Saint Louis, MO
Relevant Courses: — **GPA 3.64**

- 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

Bachelor of Science in Electrical Engineering — **Graduated May 2019**
University of Missouri - Columbia — Columbia, MO
Minors: — **ECE GPA: 3.84**

- Mathematics
- Computer Science

RELEVANT EXPERIENCE

Real Time Software Engineer, *The Boeing Company,* Berkeley, Missouri — **July 2020-Present**

- 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.

Electronic System Design and Analysis Engineer, *The Boeing Company,* Berkeley, Missouri — **June 2019-July 2020**

- 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.

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.