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* — **July 2020-Present**

- Developed models and simulations for Avionics Systems using C, C++, and Ada in a Linux environment for USAF pilots.
- Occupied the role of Electronic Warfare Subject Matter Expert, while also working on Digital Communication and Navigation capabilities under 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 Mid-Mission initialization capability, reducing boot-up time from 15 minutes to less than a minute, saving hundreds of hours monthly.

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

- Defined and updated system and software requirements to enhance system efficiency and traceability for avionic systems on an Air Force platform.
- Developed and maintained avionic systems' design architectures, including interface and sequential diagrams, to improve use-case capability algorithms.
- Successfully created the Interface Control Document for the Digital Communication Capability on the Warfighter, establishing a contractual obligation with the customer.

Skills:

Python, SQL, Tensorflow, Keras, Pandas, NumPy, PyMC, PyTorch, Jupyter Notebook, Matplotlib AWS, C, C++, C#, Ada, PHP, HTML, JavaScript, MATLAB, ARM assembly, R, Linux Development, Windows Development, Visual Studio, Robotics Operating System (ROS), Git, Jenkins, VersionOne, AGILE, Snowflake, Power BI, Tableau, Docker

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.