ALEXANDER J. FLYNN

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EDUCATION

Master of Science in Engineering Data Analytics and Statistics
Washington University in Saint Louis

Graduated May 2023
Saint Louis, MO
GPA 3.64

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

Bachelor of Science in Electrical Engineering
University of Missouri - Columbia

Graduated May 2019
Columbia, MO
ECE GPA: 3.84

Minors:

- Mathematics
- Computer Science

RELEVANT EXPERIENCE

Real Time Software Engineer, *The Boeing Company*

July 2020-Present

- Occupied the role of Electronic Warfare Subject Matter Expert, developing software for the Digital Communication and Navigation capabilities in a simulation environment under RTOS constraints.
- Architected and developed Sensor Fusion and Digital Signal Processing simulation models.
- Integrated a Mid-Mission initialization capability, reducing boot-up time from 15 minutes to less than a minute, saving the program hundreds of hours of wasted time monthly.
- Developed Vehicle Management System software including navigation and embedded control algorithms.

Electronic System Design and Analysis Engineer, *The Boeing Company*

June 2019-July 2020

- Architected system software to enhance the Digital Signal Processing, Digital Communication, and Sensor Fusion capabilities for an Air Force Warfighter.
- Created use-case scenarios, interface documents, and sequential logic diagrams for the Sensor Fusion and Digital Radio computers.
- Successfully created the Program's published Interface Control Document for the Digital Communication Capability on the Warfighter, establishing a contractual obligation with the customer.

Skills:

Python, Machine Learning, Artificial Intelligence, T-SQL, MySQL, Postgres, Tensorflow, Keras, Pandas, NumPy, PyMC, PyTorch, Jupyter Notebook, Matplotlib, AWS, C, C++, C#, Java, Reinforcement Learning, Deep Learning, Neural Networks, Monte Carlo Methods, Bayesian Networks, Digital Communications, Digital Signal Processing, Sensor Fusion, Stochastic Processes, Estimation Theory, Ada, PHP, HTML, JavaScript, MATLAB, R, Linux Development, Visual Studio, Git, Jenkins, VersionOne, AGILE, Apache Spark, Tableau, Docker, Kubernetes, Airflow

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.