Jack Donohue

WORK EXPERIENCE

Quantitative Analyst: Graduate Intern
Wells Fargo 06/2023 – 08/2023

- Realized a 20% decrease in inference engine run time, via code profiling, timing experiments, and data sampling.
- Collaborated across the model development pipeline for the loss forecasting of the bank's credit card portfolio.
- Leveraged technologies such as distributed clusters, Linux, Spark, and Hadoop to analyze credit card portfolio data statistically.

Material Physics Capstone Research
University of Virginia 05/2023 – 08/2023

- Developed Keras Tuner optimization neural networks that led to ~60% more accurate algorithms using loss functions, layer architectures, transfer learning, cross-validation, and tuning hyper-parameters; as the lead on algorithm optimization.
- Achieved an accuracy 10% better than the stated goal set by the research sponsor, through the collaboration of the research team.
- Obtained an 87.1% reduction in data complexity by applying Gaussian mixture models to the target features leading to faster training and inference times without loss of performance.

Paratrooper & Non-Commissioned Officer
US Army Airborne 07/2013 – 07/2018

- Promoted 5x in 5 years to the rank of Sergeant serving as a team member and leader in an airborne infantry platoon.
- Mentored 2 junior soldiers through the assessment and promotion process to Non-Commissioned Officer, as a team leader.
- Managed aircraft load planning as an Air Movement Officer.
- Won 1st place in Battalion Soldier of the Month competition, representing a company of ~100 paratroopers.
- Completed 28 parachute jumps in 5 different countries.

PROJECTS

Bayesian Classification of Forgeries 10/2022

- Attained ~90% accuracy in classifying bank notes, and identifying forgeries using PyMC's probabilistic programming language and Bayesian Machine Learning methods.

Natural Language Processing 08/2023

- Attained ~90% accuracy in classifying bank notes, and identifying forgeries using PyMC's probabilistic programming language and Bayesian Machine Learning methods.

Portfolio Projects 01/2021 – Present

- Please refer to the Portfolio Website for all personal projects.

CONTACT

- Charlotte, NC (Open to Remote)
- JND173@protonmail.com
- Portfolio Website
- Linkedin.com/in/jack-n-donohue/
- Github.com/JD-DS

SKILLS

Technical Skills::

- Data Science
- Machine Learning
- Deep Learning
- Computer Vision
- Natural Language Processing
- Feature Engineering
- Exploratory Data Analysis
- Quantitative Analytics
- Extract, Transform, Load
- Data Visualization

Tools and Software:

- *Python*
- *Linux / Bash*
- *Numpy*
- *Scipy*
- *Sci-kit Learn*
- *Tensorflow*
- *Keras*
- *Seaborn*
- *Plotly*
- *Jupyter*
- *Spark*
- *Hadoop*

Languages:
- English (Native)

EDUCATION

University of Virginia
Master of Science
Data Science
Charlottesville, VA — 08/2023
3.84 / 4.0 GPA

Fordham University
Bachelor of Science
Business & Finance
New York, NY — 12/2021
3.7 / 4.0 GPA

Awards:
- Cum Laude
- Dean's List