

Jack Donohue

[Portfolio Website](#) | [GitHub](#) | [LinkedIn](#) | JND173@protonmail.com

Technical Skills

- Python, Machine Learning, Computer Vision, Deep Learning, Big Data Systems, Visualization, Analytics.
- Tools: Linux, Git, Distributed Systems, TensorFlow, Jupyter, Pandas, Sci-Kit Learn, Numpy, Spark, Hadoop, Bash.

Experience

QUANTITATIVE ANALYTICS INTERN - RISK MODELING | WELLS FARGO

JUN 2023 – AUG 2023

- Worked as a member of a model development team, gaining experience in the model development pipeline, including the importance of consulting stakeholders such as line of business experts and model validation teams.
- Acquired hands-on experience leveraging technologies such as distributed clusters, Linux, Spark, and Hadoop.
- Achieved ~20% decrease in inference engine run time, via code profiling, timing experiments, and data sampling.
- Interpreted and presented final results to intern managers, stakeholders, and peers.

MATERIAL PHYSICS CAPSTONE RESEARCH | UNIVERSITY OF VIRGINIA

MAY 2023 – AUG 2023

- Developed 'Physics Aware Neural Networks' to model the structure-property relationships between explosive materials and their energy output measured in lab experiments.
- Optimized networks through experimentation with loss functions, layer architectures, optimizers, transfer learning, cross validation, and tuning hyperparameters with custom models in Keras Tuner.
- Achieved 0.45 mean validation loss, exceeding the required benchmark of 0.5 set by the research sponsor.
- Achieved 87.1% reduction in data complexity by applying gaussian mixture models to the target features leading to faster training and inference times.
- Interpreted and presented final results to the School of Data Science community.

PARATROOPER & NON-COMMISSIONED OFFICER | US ARMY AIRBORNE

JUL 2013 – JUL 2018

- Promoted 5x in 5 years to the rank of Sergeant, serving as a team leader in an airborne infantry platoon.
- Mentored 2 junior soldiers through the assessment and promotion process to Non-Commissioned Officer.

Education

UNIVERSITY OF VIRGINIA | M.S. DATA SCIENCE

JAN 2022 – AUG 2023

- Relevant Coursework: Computer Science, Linear Models, Statistical Learning, Deep Learning, Big Data Systems.

FORDHAM UNIVERSITY | B.S. BUSINESS & FINANCE MINOR

AUG 2018 – DEC 2021

- Graduated Cum Laude.

Certifications

- Udacity | Intermediate Python
- Datacamp | Introduction to Bash Scripting
- Coursera | Building Machine Learning Pipelines in PySpark

Projects:

- Please refer to my [Portfolio Website](#) for all of my personal projects.