BRUNO C. M. BARRETO

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Data Science specialist with expertise in machine learning, system modelling, and dataset analysis seeking a challenging role as a Data Scientist, Analyst, or Software Developer at an ambitious technology-driven company.

EDUCATION

M.S. in Data Science - University of Washington, Seattle, WA – (3.95 GPA) (166 Verb. & Quant. GRE) 09/2023 – 03/2025
Certificate, Data Science - General Assembly 10/2022 – 02/2023
B.S. in Bioengineering w/ Data Science - University of Washington, Seattle, WA 09/2018 – 07/2022
Certificate, Azure Data Science Associate (DP-100) 07/2022 – 09/2022
Certificate, Azure Fundamentals (AZ-900) 06/2022 – 07/2022
Certificate, Azure AI Engineer Associate (AI-102) 04/2023 – 08/2023

EXPERIENCE

DATA ENGINEER - VIRGINIA MASON, SEATTLE, WA 09/2024 - 03/2025

- Developed a hybrid time-series forecasting model to predict U.S. spine surgery costs through 2030 based on operation, hospital, and patient information capable of explaining over 50% of the variance in historical surgery costs

INFORMATICS SPECIALIST - NANOSTRING, SEATTLE, WA 12/2021 - 06/2022

- GEOMX SUSTAINABLE REAGENT PROJECT - Reduced operating costs for the GeoMx Digital Spatial Profiler by altering reagent container and modifying device software to intelligently monitor fluid requirements, resulting in a 20% drop in reagent costs.

DATA SCIENCE PROJECTS

DEEP LEARNING IMAGE CLASSIFIER 04/2022 - 06/2022

- Developed a model in Python to automatically classify images into 10 distinct categories using a trained convolutional neural network with 90% accuracy in classification.

PREDICTIVE NERVE REGNERATION MODEL 05/2021 - 06/2021

- Developed a model of peripheral nerve regeneration for neuroscientists that reduced growth factor conduit testing times by 100x using COMSOL Multiphysics.

TURBO GLYCOLYSIS PID CONTROLLER 04/2022 - 06/2022

- Created a PID controller in Python and MATLAB for ATP production in an unstable turbo glycolysis bioreactor that improved reactor settling times by 80% and made reactions stable.

HOUSING PRICE ESTIMATOR 11/2022 - 12/2022

- Created a machine learning model to automatically assign appropriate house prices for realtors in Ames, Iowa using a linear regression trained on local tax data, resulting in a model capable of accounting for 92% of variance in house prices.

ACCIDENT SEVERITY PREDICTOR NLP 01/2023 - 02/2023

- Developed a model that can predict flight accident severity from a formal report with 90% accuracy and determine that improper installation and maintenance of airframe components was a key cause of high lethality

ATTENTION-BASED SENTIMENT CLASSIFER 05/2024 – 06/2024

- Developed an attention-based model to automatically determine the sentiment of a movie review from contextless review text with 88% accuracy

TECHNICAL SKILLS

Programming Languages: Python, SQL, Java, MATLAB, R, C++, JavaScript, TypeScript
Database Languages: SQL, MySQL, PostgreSQL, Microsoft SQL Server, MongoDB, GraphQL, SparkSQL
Machine Learning Frameworks: Tensorflow, PyTorch, NumPy, scikit-learn, Pandas, OpenCV, spaCy, skforecast, Scipy, Statsmodels, Polars
Machine Learning Types: Regression, Classification, Natural Language Processing, Neural Networks, Time Series
Software Technologies: Git, Github, Microsoft Azure, Slack, Jupyter Notebooks, Google Colab, Microsoft Office, Linux, Matplotlib, Seaborn, Tableau, Power BI, AWS, Redshift, SageMaker, Athena, EC2, S3, Lambda, Flask, Kubernetes, Docker, Artificial Intelligence