

Wilson Cheung

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PROFESSIONAL EXPERIENCE

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Data Engineer - Experimentation Team

Dublin, IE

August 2023 - Present

Accenture Federal Services

Senior Data Scientist - Applied Intelligence Division

Arlington, VA, USA

August 2022 - August 2023

- Optimized performance of fraud detection models by refactoring code to adhere to technological best practices, resulting in increased efficiency and reduced lead times for model operations and maintenance
- Facilitated migration of risk modeling production jobs to upgraded database by refactoring SQL queries with nested CTEs, reducing high virtual memory usage by 70% and improving execution times by 55%
- Built interactive dashboard visualizations utilizing counterfactual analysis and algorithmic fairness assessments from state-of-the-art research to provide model recommendations for client projects
- Created technical specifications and unit tests for integrating machine learning models into a data visualization dashboard to help clients identify student outcomes and monitor school compliance

Booz Allen Hamilton

Data Scientist - Senior Consultant in Strategic Innovations Group

Washington, DC, USA

April 2019 - December 2021

- Led strategic investment project aimed at expanding geospatial preprocessing capabilities (including spatial joins and geometry filtering) to enable ingestion of larger datasets from existing POC
- Contributed to the development of MLOps pipeline by containerizing API for training reinforcement learning models to simulate war strategies in Unity from unstructured text data in operational plans
- Reduced Total Cost of Ownership by \$2M over 3 years for government client through the implementation of a text analytics solution that fulfilled both business and technical requirements of end users
- Built ETL pipelines using Python and shell scripts to process and store 5.5 TB of position-delimited Medicare data into Postgres database, decreasing data ingestion lead time by ten-fold

Morgan Stanley

Data Scientist - Contingent Hire under Fixed Income Division

New York, NY, USA

October 2017 - March 2019

- Maintained internal application housing 43 GB of proprietary warehouse data by integrating improved data storage API, refactoring legacy codebase, and upgrading software dependencies
- Built internal data visualization application hosting 50 TB of proprietary financial data, utilizing highmaps API to create statistical aggregations of reported U.S. household incomes
- Developed scripts to validate proprietary pricing models, perform data quality checks after machine migration, and communicate results to analysts through programmatically generated email reports

SKILLS

Technical: Python (numpy, scipy, pandas, sklearn, PySpark, PyTorch), R, SQL, Javascript (AngularJS, d3.js), API Development (FastAPI, Flask), Docker, UNIX, Git Version Control, Amazon Web Services (EC2, S3)

Quantitative: Machine Learning (classification, regression, clustering, deep neural networks), Probability and Statistics (confidence intervals, hypothesis testing), Data Mining (data cleaning, feature engineering)

EDUCATION

Georgia Institute of Technology — Master of Science in Analytics

December 2021

University of South Carolina — Master of Science in Mathematics

December 2015

State University of New York at Geneseo — Bachelor of Arts in Mathematics

May 2013