

Wilson Cheung

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PROFESSIONAL EXPERIENCE

Accenture Federal Services

Senior Data Scientist - Applied Intelligence

Arlington, VA

August 2022 - Present

- Refactored Python codebase to maximize email campaign effectiveness for customers with highest default risk, resulting in a 4% click-through rate and a 51% email open rate from 5.7 million contacted customers

Amazon Web Services

Data Scientist - Data Center Planning and Delivery Data Science Team

Arlington, VA

January 2022 - June 2022

- Proposed probabilistic generalization of data center planning metrics to improve accuracy of position based power reading estimations and projections by 23% across all AWS regions and availability zones
- Reduced processing times on daily snapshots of position-based power readings by 35% by scheduling jobs to automate upstream dashboard refresh processes and optimizing time performance of SQL queries

Booz Allen Hamilton

Data Scientist - Senior Consultant in Strategic Innovations Group

Washington, DC

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

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

PROJECTS

Algorithmic Bias Analysis in Graduate School Admissions

Report available upon request

- An expository report containing statistical methods to identify and mitigate fairness-related harms in contextual bandit systems using synthetically generated graduate admissions data

SKILLS

Technical: Python (numpy, scipy, pandas, sklearn, PySpark, Jupyter), 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), Probability and Statistics (confidence intervals, hypothesis testing), Data Mining (data cleaning, feature engineering), Linear Programming

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