

Ryan McPherson

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EDUCATION

University of California, Santa Cruz

Santa Cruz, CA

B.A. in Business Management Economics and Mathematics, Minor in Statistics

09/2018 - 03/2022

Participation: Putnam Math Competition, Study Slugs Volunteer Tutoring, Economics R support group

TECHNICAL SKILLS

Languages: Python, SQL (Postgres, MySQL, MSSQL), R, Matlab, Stata, RegEx

Libraries: Pandas, NumPy, Matplotlib, Scikit-learn, Keras, Seaborn, BeautifulSoup, Pytorch, PyODBC, Selenium

Developer Tools: PyCharm, Python Notebooks, Docker, Visual Studio, Git, BitBucket, Jira

Data Tools: Jupyter Lab, Excel, Tableau, AWS Quicksight and SageMaker, Azure Data Studio, SSMS, Microsoft Office Suite

EXPERIENCE

Data Analyst

04/2022 - Present

Packable

Remote

- Item Discovery program that was responsible for the joining of 1500 listings, capturing missed revenue
- Wrote shipping discrepancy metric creation script, reducing a daily task time by 75%
- Member of the Data Science team, provide significant support to data scientist coworkers
- Practiced writing SQL queries in large-scale, messy, complex datasets and databases
- Use of python for scripting automated processes, generated and emailed KPI reports, saving an hour a day
- Seasonality analysis and price forecast for product growth using one way ANOVA alongside seasonal differencing

Intern

05/2021 - 06/2021

Innovation Capital

Remote

- Created and presented financial models and market valuation analysis using Excel and PowerPoint
- Used Yahoo Finance API to import and analyze stock pricing data, explored using Python and R in single notebook, exercise passing variables between kernels
- Strong emphasis on discussing the use of financial performance indicators and the acquisition process

Subcontracts Intern

06/2020 - 09/2020

Millennium Space Systems

El Segundo, CA

- Co-piloted a proposal effort, requisitioned pricing quotes from subcontractors
- Represented team in daily proposal stand-up, built stronger presentation and technical communication skills
- Communicated with subcontract clients for pricing requisitions and order status
- Conducted pricing analysis based on historical data, supplier reputation, and Federal Acquisition Regulations
- Updated and created process, on boarding, historic documentation on Sharepoint and Confluence

PROJECTS AND RESEARCH

Effects of Policy on the Gender Wage Gap | *R, Statistical Research Methods, Non-Experimental Analysis*

- Econometrics focused research paper measuring causal effects of legislature on gender based wage gaps
- Based on publicly available US Census data, with cleaning, pre-processing, visualizations all handled through R
- Use of regression discontinuity analysis surrounding years in which legislature was implemented
- Created informative visualizations displaying the findings, regression analysis, and trends over time

Car Review Analysis | *Python, BeautifulSoup, Pandas, SQL, Scikit-learn, Seaborn*

- Collected success metrics through web scraping youtube videos from car review youtuber Doug DeMuro
- Cleansed and joined data collected with a published aggregate of car reviews with various features
- Use of PCA to find important vehicle characteristics correlation to video success

Black Scholes Research Project | *Differential Equations, Stochastic Processes, Mathematical Programming, LaTeX*

- Provides an introduction to less studied mathematical fields necessary to understand the equations presented
- Makes use of topics such as stochastic calculus, partial differential equations and constrained optimization to derive the model and formula from an expansion of the basic profit function
- Walk through solving of the formula for a real stock option price, implemented in Python with numpy and YFinance API to test calculation and verify accuracy