Owen Liu . Jarvis Consulting

Hi there, My name is Owen Liu, I am an aspiring industrial engineering new grad from the University of Toronto. I specialized in operations research, data analysis, and project management. I had one research assistant experience with professor Hedergott from the University of Amsterdam and several industry-relevant core projects in my undergrad. The data industry is redefining and reconstructing our daily life with new challenges emerging every day. I am eager to share my insights, learn from the game changers, and eventually impact the industry and beyond.

Skills

Proficient: Python (Numpy, Panda, Sklearn, Tensorflow, etc.), RDBMS/SQL, Postgresql, Agile/Scrum, R, Simulation with tools like Simio, MS Access & Excel, Statistics (Hypothesis testing, A/B Testing, Model Fitting)

Competent: Java Object Oriented, NoSQL, Tableau, Hadoop, Optimization (Mixed Integer Programming, Dynamic Programming), Forecasting. Production/Revenue Modelling, Decision Tree Learning (CART, Random Forest), Feature Engineering (Regression, Clustering, Grid Search)

Familiar: Linux/Bash, Oracle, Machine Learning (Neural networks, K-nearest Neighbours), Scala, Spark, Azure & AWS & Google Cloud

Jarvis Projects

Project source code: https://github.com/jarviscanada/jarvis_data_eng_OwenLiu

Cluster Monitor [GitHub]:

- Provided he Jarvis LCA team with the linux hardware specifications of the nodes/centOS that Jarvis uses.
- Established a PostgreSQL instance using Docker.
- Retrieved the dynamic and static specs from the CentOS using Linux/Bash Scripts.
- Inserted the specs into two tables using RDBMS/SQL.
- Performed a crontab job in automating dynamic data retrieval every one minute.
- Solved 3 business-level questions with data analytics skills in SQL.

Python Data Analytics [GitHub]: In Progress

Hadoop [GitHub]: In Progress

Spark/Scala [GitHub]: Not Started

Highlighted Projects

An Information Retrieval Digital Platform for EV Stations: - Developed a full-stack cloud-based system that retrieves a large volume of electric vehicle charging stations data from the client's database. Transformed the data that caters to the interest and ability of users. Visulizaed and presented the data to end users in an easy-to-consume format with computer engineering and computer science students. - Conducted a complete data integration process(ETL) including retrieval of 500K tuples of data given, elementary data analysis (EDA), data transformation and verification, and data integrations, which generates required assorted data to end users. - Retrieved raw data from AWS data migration service. - Established PostgreSQL connection to migrated database. - Adopted python in data cleaning, transformation, integration, analysis, and passing back to the database. - Adopted python sk-learn, matplotlib tools in data visualizations.

A Developer Job Satisfaction Predictor: - Predicted job satisfaction from a poll survey conducted by the StackOverFlow community. - Performed data cleaning, amputation, and parsing to raw data. - Visualized the data through sklearn and matplotlib tools in python. - Applied logistic regression, decision tree, clustering to develop diffrent models. - Attained precision of distinct models with a confusion matrix. - Predicted job satisfaction from such models through simulation.

Airport Passenger Movement Simulation: - Modeled historical data of passenger arrivals, check-ins, and security screening. - Optimized the system for efficiency and cost, and provided budget-permitting upgrading business decisions. - Applied, analyzed, and tested the fitness of presumed statistical distributions over the historical data with Kirmogorov and Smirnov Test using R. - Designed a Simio model to model the real-time passenger movement.

An Online Earphone Encyclopedia Website: - Developed a fully interactive website including functions like search, sort, review, account creation and edition. - Used Java Objected Oriented Programming, Microsoft Access, SQL to

establish back-end, server connection. - Enhanced Agile/Scrum project methodology. - Gave a demo/release speech on behalf of the team.

Professional Experiences

Data Engineer Consultant, Jarvis (2021 - present): - Performed various data retrieval, analysis, and report building jobs for the Jarvis LCA team using Shell scripts annd docker-provisioned postgresql. - Performed data analysis, visualization, and business question proposals for a Jarvis Client with docker-provisioned postgresql and jupyter lab.

Research Associate, Peking University (2019.6 - 2019.8): - Optimized an investor problem through stochastic approximation. - Constructed a pricing model of an American call option. - Attained the volatility where the predicted price of the option has an optimal fit to the actual price through stochastic approximation. - Applied steepest descent algorithm, non-linear programming, monte carlo simulation, and gradient estimation in Python. - Retrieved finance data from a dummy database with SQL. - Picked up stock market basics in a short time span.

Store/Warehouse Associate, TJX Canada (2018.9 - 2019.6): - Familiarized with store and warehouse logistics. - Enhanced interpersonal skills with customers with English and French.

TOEFL/GRE Tutor, Billions Education (2018.6 - 2018.8): - Delivered insights in English to over 20 numbers of ESL mentees with TOEFL writing and speaking tests and GRE Verbal test.

Education

University of Toronto (June 2021), Bachelor of Applied Science, Industrial Engineering

Miscellaneous

- Graduate Record Examination(GRE): Verbal 166, Quant 169, Global Top 5%
- Microsoft Azure DP600 Certificate
- N/A
- Volunteer @ Toronto International Film Festival 2017
- Volunteer @ Toronto Pride 2016 and 2017
- French B1, Achieving full fluency in 2022