Ziyang Lin . Jarvis Consulting

I am a new graduate from the University of Toronto with a Bachelor's degree in Statistics and Computer Science who holds a keen interest in both business and IT technologies. Within my coursework, I built a solid software engineering foundation along with working knowledge in data science and machine learning. Besides, my strong communication skills trained from a wide range of volunteering and leadership experience also allow me to work comfortably in both business and technical settings. I enjoy a dynamic and challenging work environment where I can apply my techincal knowledge to solve real-world business problems, and I am always open to new learning opportunities.

Skills

Proficient: Java, Linux/Bash, RDBMS/SQL, Agile/Scrum, Git, Python (numpy, scikit-learn, and PyTorch), R (Linear Regression, Time Series, Bayesian Modeling), Advanced Excel

Competent: REST API, Springboot, Docker, Latex, Theory of Computation

Familiar: HTML/CSS, Javascript, C, Verilog, Assembly Language

Jarvis Projects

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

Cluster Monitor [GitHub]: Implemented a series of bash scripts and SQL scripts to automate the process of setting up PostgreSQL server and Docker, and record hardware specifications and monitor hardware usages in a cluster network of Linux servers for SQL analysis such as detecting server failures.

Core Java Apps [GitHub]:

- Twitter App: Developed a client-server architecture application that interacts with the Twitter API to allow users to post, show, and delete tweets with a command-line interface.
- JDBC App: Implemented an application with DAO pattern with JDBC to model objects in a retailer database and perform CRUD operations with them.
- Grep App: Implemented a Java application that reproduces the functionalities of grep command in Linux, which can search for all occurrences of a regular expression in a root directory and write them to an output file.

Springboot App [GitHub]: Developed a dockerized Spring Boot based stock trading REST API application that allows individual trader to create and view trading account, deposit or withdraw funds, and submit market orders for stocks in the daily list on an HTML page or through REST endpoints. The application features a 3-tier architecture in which the client UI is displayed using a Swagger UI, and the database component is managed by a PostgreSQL database that connects to the IEX Cloud API for real-time stock quote data updates.

Python Data Analytics and Wrangling [GitHub]: Performed data analytics and wrangling against a data warehouse ingested from the London Gift Shop retail database using the Python Pandas package and Jupyter Notebook. The notebook analysis presents historical revenue trends, customer activities, and segmentation of customers based on the RFM frameworks to drive a marketing strategy that aims to reboost LGS's flattening revenue.

Hadoop [GitHub]: In progress

Spark [GitHub]: Not yet started

Cloud/DevOps [GitHub]: Not yet started

Highlighted Projects

VAR Time Series Modelling in R: Constructed equally-weighted (EW) and risk-parity (RP) factor-mimicking portfolios of macroeconomic variables of the past 30 years using a multivariate time series model (VAR) and analyzed their performance.

Decision Tree Classifier for News Headlines: Built and trained a Python scikit-learn decision tree classifier to classify fake and real news headlines with both Gini and Information Gain criterion, and achieved a validation accuracy of 76%.

Neural Network for Expression Recognition: Developed and tuned a multiclass classification neural network with Python scikit-learn for facial expression recognition using the Toronto Face Dataset, and achieved a 79% validation accuracy.

JavaFX Mini-Games: Developed multiple simple games that utilize Java OOP principles including a Snake Game, a Jigsaw Puzzle Game, and a Treasure Hunter Game with JavaFX.

Professional Experiences

Data Engineer, Jarvis Consulting Group (2020-present): Implemented multiple projects and applications that used a wide range of technologies including Java, RDBMS, Linux. Obtained hands-on experience in Agile practices for team collaboration such as holding Scrum ceremonies and leading the Scrum team's development cycle.

Volunteer Consultant, CUSO International (NPO) (2018-2020): Designed a software and database architecture for a pilot maternal health care information system (Mother Care Info Track) in Nigeria by researching 30+ software modules, and wrote a Python program to output project cost based on the Amazon TCO model. Delivered remote consultancy services and composed a research report to the CUSO project team that aims to provide an actionable strategy against external climate shocks for small-scale women agricultural entrepreneurs in the Philippines.

Industry Analyst, AI Sector, Synced Technology Inc. (2019-2020): Developed a Python crawler program to automatically collect recent news in the official website of major companies in the automobile, transportation, and semi-conductor industry, and reformat them into an Excel table. Monitored industry dynamics by analyzing and summarizing 200+ global news per week in AI's applications in trending scenarios such as autopilot system and smart home devices, and led the editing of the AI Daily news express channel.

Education

University of Toronto (2016-2020), Honour Bachelor of Sciences, Statistics and Computer Science - University of Toronto Innis College Entrance Scholarship & 4-year in-course scholarship - Dean's List (2017-2020) - GPA: 3.74/4.00, Graduated with High Distinction

Miscellaneous

- Vice President at the U of T Chinese Volunteer Association: Directed 5 charity fund-raising events such as food festival and campus masquerade, and performed sponsorship outreaching to contribute $11,000+ to the club's annual account.
- Leader in Summer Volunteer Teaching Program: Recruited and led a team of 8 volunteers for a 3-week volunteer teaching program in a rural middle school in China.
- Languages: English (Native), Mandarin Chinese (Native), Japanese (Intermediate), Italian (Intermediate)
- Business Skills: Business Competiveness Analysis, Basic Accounting Principles, Financial Modelling, Professional Service Skills
- Interests: Guitar, Piano, Badminton, Soccer, Hiking, Cycling, Pen Calligraphy