Sowon Ham . Jarvis Consulting

I am a recent graduate from the University of Toronto - St. George Campus that studied statistics and mathematics for my Bachelor's degree. During my studies, it focused mostly on regression models, A/B testing, hypothesis testing, design and analysis of experiments, and a few machine learning methods. As I have been performing elementary to advanced data and business analysis on smaller data sets in my degree, to get further involved in this industry on an organizational level scale I have joined Jarvis as a data engineer to pursue my passion. Jarvis uses the agile framework implemented using scrum for the project and team management. My team and I have been holding daily scrums and biweekly scrum retros to discuss daily tickets to complete and sprint backlog for the next sprint respectively. Additionally, I deployed Minimum Viable Product (MVP) and a Proof of Concept (PoC) for the Jarvis team (Linux Cluster Administration team) and their clients (London Gift Shop) by using the most recent and growing technologies in the data and business field such as Docker, SQL, Pandas, NumPy, Seaborn, Jupyter Notebook, Linux, etc. I strive to become a professional data/business analyst or any related profession to deploy products and reports of the utmost quality that can satisfy the client and easily be managed by other engineers.

Skills

Proficient: R/RMarkdown/LaTeX, Linux/Bash, RDBMS/SQL, Agile/Scrum, Git/GitFlow, AutoIt, Docker, Statistics (A/B Testing, Hypothesis Testing, Time Series Analysis), Experimental Design

Competent: Stochastic Processes, Microsoft Excel, Java, Julia, Python, Forecasting, Tidyverse

Familiar: Virtual Network Computing (VNC), Verilog, Machine Learning (Neural Network, Cluster Algorithms), Forecasting, Cloud Networking

Jarvis Projects

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

Cluster Monitor [GitHub]:

- Provided the Jarvis Linux Cluster Administration (LCA) team with a Minimum Viable Product (MVP) for recording the hardware specifications and resource usage for nodes."
- Developed bash scripts for automatically collecting the hardware specifications and resource usage from nodes and record it in a RDBMS, PostgreSQL.
- Used docker to create a container for PostgreSQL to create/start/stop the database.
- Queried the database to perform and collect specific data for related business questions of interest.
- Utilized CRONTAB to automatically data every 1 minute interval from all the servers.

Python Data Analytics [GitHub]: In Progress

Hadoop [GitHub]: Not Started

Spark [GitHub]: Not Started

Highlighted Projects

Computer Automation: - Implemented a complex and lengthy set of instruction for the computer to perform using Windows API as a base to diminish labour. - Researched and incorporated image and pixel searching tools to precisely determine which stage of instructions the computer is performing to reduce automation time by 30%. - Constructed separate executable for different stages of the automation to cut down the testing time and cost by a significant amount.

Data Analysis on Computer Automation: This project based on the computer automation that I performed on the above project. - Designed and performed a replicated exponential factorial experiment to abolish the ambiguity and precisely determine the efficiency of two contrasting scripts. - Enhanced the computer automation efficiency by 10% through utilizing the statistical conclusions written from the experiment.

Non-linear Regression Model with a Neural Network: - Implemented a fully-connected neural network (multi-layer perceptron) with 10-dimensional hidden layer with a trigonometric non-linearity. - Performed gradient-descent using automatic differentiation to estimate parameters given the batch-size, model variance and learning rate. - Adjusted and improved the neural network to learn both the mean and variance of the Gaussian model.

Professional Experiences

Data Analyst Consultant, Jarvis Consulting Group (2021.12-Present): - Provided the Jarvis LCA team with a MVP that collects hardware specification and resource usage on nodes using Bash scripting and store the data into a RDBMS, PostgreSQL. - Query the database several times to answer business related questions and observe the data. - Collaborated with teams to solve problems that were rather not trivial.

Volunteer Work, St. Paschal Baylon Church (2016.05-2016.09): - Enthusiastic to learn new methods to quickly incorporate it into the working environment. - Immensely communicated with other crew members to work efficiently and not overlap cleaning the same areas. - Flexible with abrupt changes in work schedule to accommodate and prepare for any uprising matters.

Education

University of Toronto - St. George Campus (2017-2021), Honours Bachelor of Science, with Distinction, Statistics and Mathematics

Miscellaneous

- Badminton Player
- PC Gaming
- Build automation scripts for convenience