

# Homa Almasieh . Jarvis Consulting

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Sed venenatis a orci ac malesuada. Vivamus ligula elit, viverra eu ante porttitor, blandit convallis augue. Aliquam justo justo, mollis at lacus eu, rutrum finibus est. Vestibulum venenatis purus id accumsan pretium. In efficitur magna nec enim laoreet tincidunt. Ut libero metus, scelerisque nec eros vitae, sagittis pellentesque enim. Donec dictum felis volutpat, vehicula magna eu, imperdiet elit. Phasellus ut velit a massa efficitur faucibus. Sed volutpat, lacus sed sagittis luctus, elit.

## Skills

**Proficient:** Java, Linux/Bash, Machine Learning and Data Analytics, Statistics, RDBMS/SQL, Tableau, Agile/Scrum, Git

**Competent:** Pandas, Numpy, Scipy, Scikit-Learn, DHTML/CSS

**Familiar:** R, APIs, Tensorflow/Deep learning, Flask, Google Cloud Platform(GCP)

## Jarvis Projects

Project source code: [https://github.com/jarviscanada/jarvis\\_data\\_eng\\_HomaAlmasieh](https://github.com/jarviscanada/jarvis_data_eng_HomaAlmasieh)

**Cluster Monitor** [GitHub]: Implemented a Monitoring Agent on a node/server within the linux cluster to collect the hardware specifications and monitor the cluster node resource usage in real time. This Monitoring Agent contains a PostgreSQL server installed within a Docker container that collects information submitted through bash scripts installed on each node.

**Core Java Apps** [GitHub]:

- Twitter App: Curabitur laoreet tristique leo, eget suscipit nisi. Sed in sodales ex. Maecenas vitae tincidunt dui, et eleifend quam.
- JDBC App: Curabitur laoreet tristique leo, eget suscipit nisi. Sed in sodales ex. Maecenas vitae tincidunt dui, et eleifend quam.
- Grep App: Curabitur laoreet tristique leo, eget suscipit nisi. Sed in sodales ex. Maecenas vitae tincidunt dui, et eleifend quam.

**Springboot App** [GitHub]: Not Started

**Python Data Analytics** [GitHub]: Not Started

**Hadoop** [GitHub]: Not Started

**Spark** [GitHub]: Not Started

**Cloud/DevOps** [GitHub]: Not Started

## Highlighted Projects

**Spotify Analysis** [GitHub]: Collaborated in a team of five to determine what features impact the Popularity index of any given song on Spotify using Python. By analyzing various physical features of a song as well as some peripheral features, we look to identify a pattern within how a song garners a successful Popularity index. We have created a machine learning model that can predict the popularity of a song based on these features.

**Credit Risk Analysis** [GitHub]: Used the credit card credit dataset from LendingClub, a peer-to-peer lending services company, I applied oversample the data using the RandomOverSampler and SMOTE algorithms, and undersample the data using the ClusterCentroids algorithm. Then, I used a combinatorial approach of over and undersampling using the SMOTEENN algorithm. Next, I compared two new machine learning models BalancedRandomForestClassifier and EasyEnsembleClassifier that reduce bias. Lastly, I evaluated the performance of these models to be used to predict credit risk.

**Spotify Analysis** [GitHub]: Processed the dataset in order to compile, train, and evaluate the neural network model, using Pandas and Scikit-Learn. Designed a binary classification model to analyze and classify the success of charitable donations, using TensorFlow.

## Professional Experiences

**Data Engineer, Jarvis (2021-present):** Worked on various data projects involving Linux, Bash, Docker, Postgres, Java, and Spring Boot. Followed the scrum agile methodology and used Git and Git Flow in every project. Assisted others in project-related issues, and held daily scrum meetings as a scrum leader.

**College Instructor, Vaughan College (2017-2021):** Worked on various data projects involving Linux, Bash, Docker, Postgres, Java, and Spring Boot. Followed the scrum agile methodology and used Git and Git Flow in every project. Assisted others in project-related issues, and held daily scrum meetings as a scrum leader.

**Associate Research, Ryerson University (2015-2017):** Designed a Simulation of energy efficient equipment and Optimization of single house load management and energy generation.

**Assistant Professor, Isfahan University (2003-2015):** Expertised in all areas of applied mathematics including but not limited to Numerical Analysis, ODEs, PDEs, Finance mathematical modeling, Stochastic calculus, Operational Research, Integral equations, Linear Algebra, Numerical integration and Numerical derivatives.

## Education

**Azad University (2005-2010),** Doctor of Philosophy of Applied Mathematics (Integral Equations), Mathematics

**Yazd University (2001-2003),** Master of Applied Mathematics (Optimal Control), Mathematics

**Isfahan University (1997-2001),** Bachelor of Applied Mathematics, Mathematics

## Miscellaneous

- Data Analytics- University of Toronto (2021)
- List of my publications can be accessed through this link