Arshia Malekahmadi

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Education

Ryerson University, Toronto, ON September 2017 – May 2021
Bachelor of Science (Honours), Computer Science

Qualifications and Technical Skills

Programming languages:	Java, C, C++, Python, HTML, CSS, SQL, Rust, Bash
Other skills:	Bootstrap, Git, Linux, Oracle SQL Developer, Agile Methodologies
Interpersonal skills:	Problem solving, Communication, Adaptability, Leadership, Team-work, Customer service

Discrete structure and computer algorithms
Data Structures, Dynamic programming, Algorithms, OOP, Functional Programming, Performance Testing.

Artificial Intelligence and Machine Learning
Algorithms and subjects such as, classification models, regression models, belief networks, natural language understanding, neural networks, linear models, data engineering.

Projects

Retail Store Database Management System (September 2019 – November 2019)
- Developed and designed a relational database for a retail store using Oracle SQL developer,
- Troubleshooting and improvement processes as well as preformed required tests using SQL statements to solve database malfunctions, and usage issues.
- Developed front-end Java GUI application to connect to Oracle 11g database by integrating Java Swing framework into JavaFX for better UI.
- Used agile to deliver robust code, tested application using unit and integrated tests, to ensure user requirements are met.

To-Do List Application (July 2019 - August 2019)
- Designed and developed the application, using Java Swing frame work.
- Created and maintained centralized UI components for increasing development velocity and UI consistency.
- Delivered robust and highly maintained code by using design patterns and JVM.

Map Application (June 2019 - July 2019)
- Implemented and developed a command-line map application using Java which shows distance between a source (user's input) and the cities in the programs database.
- Optimized program by implementing graph searching algorithms and complexity analysis.
- Increased readability and clarity of code by using object-oriented principles.

Siren Records Music Application (January 2019 - April 2019)
- Developed a music application in Java for interactive user access to music libraries with functionalities such as adding and removing songs, and creating playlists on different profiles.
- Serialized user's data for future transmission and reconstruction on separate machines and networks.
- Wrote and executed unit and integrated test cases based on the software's design that resulted in a bug free and an intuitive UI program.

Machine Learning

ASL Live Detector (October 2019 – December 2019)
- Developed a software that can detect ASL (American Sign language) and translate it to English.
- Trained the initial data using SVM and kNN by appling PCA and finding the HOG features for improving accuracy.
- Tested several neural networks using Google Colab, to test different layers, batch size and finding the tradeoff for epochs/accuracy (96% accuracy was achieved for final model).
- Other libraries such as Keras, Pytorch, Panda, Tenserflow, Numpy and Matplotlib were used.
- OpenCV was used for lived recognition and using the trained model to detect hand gestures.

Facial Emotion Recognition (October 2019 – November 2019)
- Developed a program that can detect the emotion in images using Machine Learning in Python using Jupyter.
- Dimensionality reduction using algorithms such as PCA and LDA, for building more robust model.
- Anomaly detection using clustering, OneClassSVM to discover mislabeling in data to reduce error in model.
- Decoding One-Hot labels to perform multi-class classification using binary classes, SVM and Logistic regression was

used on PCA components of the image dataset.

Retail Store Database Management System (September 2019 – November 2019)

- Developed and designed a relational database for a retail store using Oracle SQL developer.
- Designed and developed database ER model, schema, normalization of the database, functional dependencies and complex SQL queries.
- Developed front-end Java GUI application by integrating Java Swing framework into JavaFX for better UI.
- Used agile to deliver robust code and testing application using unit test and integrated tests.

House Price Prediction Model (September 2019 – October 2019)

- Developed a program that predicts house prices by using the Jupyter Notebook and Python libraries such as Seaborn, Pandas, Matplotlib, NumPy, and Scikit-learn.
- Founded correlation between data for improving the accuracy of the model by feature selection and reducing dimensions.

Implemented predictive algorithms such as linear and logistic regression, kNN, gradient boosting, and decision trees for finding the most accurate classifier.

Experience

Canadian Tire Toronto, ON

Sales associate April 2019 – Present

- Using strong customer service and active listening skills, answered product questions with up-to-date knowledge.
- Took responsibility in dealing with new seasonal merchandises and reorganizing the warehouse based on seasonal products by using problem-solving skills which improved commercial awareness.

Parsian Fine Foods Toronto, ON

Costumer representative and Deli Clerk May 2018 - September 2018

- Provided costumers with details about products and foods, improved communication and management skills