Kureishi Shivanand

2 Staglin Ct. Markham, ON L6C 0K8 | kureishishivanand1@gmail.com | (647) 262-5138

Summary

Bachelor of Computer Engineering graduate who is hardworking, self-driven and detail-oriented. Excels in all aspects of the software development cycle for console and embedded systems, circuit analysis and design tools, digital systems, data analysis/machine learning and Android App Development.

Technical Skills

Tools:
Linux/Windows, Matlab, Xilinx ISE, Adobe Creative Suite, NetBeans IDE, Multisim, Microsoft Office, Quartus, CodeWarrior IDE, Cadence Design Systems, Visual Studio, CodeBlocks IDE, Altium Designer, Eclipse, Android Studio, SQLite Studio/MySQL Workbench, uVision IDE, PyCharm IDE, Tableau Desktop, Selenium IDE/WebDriver/JMeter, Wireshark, Docker, Talend, RStudio, SAS Studio, Jupyter Notebook, Hadoop Ecosystem, Apache Spark, Oscilloscope/Multi-meter, Waveform Generator

Languages:
Assembly, Java/Scala/Java EE/Hibernate, HTML, CSS, VHDL/Verilog, Shell Programming/Scripts/TCL, Git/Github, JavaScript/jQuery/AJAX/Node.JS/ReactJS/Redux/Angular, C/C++, C#/.NET Framework, Perl, Python/Django, PHP/ASP, SQL/MySQL, RTOS/Cortex Programming, Hadoop, R, SAS

Professional Experience and Projects

Web Developer (Co-Op) | WebPromotions Internet Services INC. June 2013 – August 2013

Key Achievements

- Created 3 websites for clients using ASP and PHP in 2 months, which heightened customer satisfaction
- Assisted peers in completing their assigned webpages, resulting in increased company efficiency
- Developed company mobile website, allowing it to gain exposure across multiple devices
- Incorporated SEO tools to increase clients' website searchability using relevant keywords
- Collaborated with peers to streamline the design process, allowing the company to increase productivity

Engineering Capstone (Android App)

- Engineered ad-hoc text messaging android app to facilitate multi-device communication
- Improved coding solutions to be most optimal per client's requirements
- Tracked and reported progress via constant reports and meetings to supervisor
- Organized and led frequent team meetings to discuss direction of project and requirements to be fulfilled

Anonymous Message Broadcaster

- Established anonymous communication between multiple client and server using multi-threading principles
- Implemented socket programming using Java Networking and Encryption to simulate network sessions

Routing Control System for Inter-domain Routing

- Designed controller to compute shortest path to other networks via link costs
- Generated packet routes through various networks
- Integrated knowledge of BGP and inter-domain routing

Ticketing System Software

- Collaborated with team members to create interactive console for ticketing service
- Executed multiple black and white box testing through vigorous regression testing
- Integrated Test-Driven Development using different levels of testing (unit cases, integration, system etc.)
- Incorporated Sprint planning within Agile environment
- Utilized SDLC layout and documented along each stage with improvements

Network File Transfer Application

- Created client that was able to upload and download file from server using Java Networking library
- Client request to change directories or list files in directory from server
- Utilized knowledge in TCP protocols and socket programming

Embedded Systems Media Center

- Produced an audio player, photo gallery and game on NXP LPC17xx board
- Enhanced knowledge in programming embedded systems and C using uVision IDE

1-bit Full Adder (IC Design)

- Designed full-adder circuit using logical effort method to receive a specific load capacitance
- Developed schematic of circuit and executed parametric and DC analysis to ensure correct functionality
- Created PCB layout of schematic using Virtuoso Layout Editor Turbo
- Generated testbench to compare schematic and extracted view from layouts

Cache Controller

- Programmed cache controller to interface SRAM units with other devices using Xilinx Spartan-3E FPGA
- Incorporated VHDL coding techniques in Xilinx ISE CAD to implement controller
- Executed program on FPGA and monitored using built-in performance tools

Semi-RISC CPU

- Designed and implemented 1-bit semi-RISC CPU on DE2 board
- Enhanced practical experience using VHDL as an HDL
- Administered appropriate control signals to data-path elements to achieve desired operation

Function Generator

- Designed and implemented function generator using Operational Amplifiers
- Generated desired square/triangle waveform per requirements
- Incorporated Voltage-controlled frequency, Frequency Range Select and Amplitude Control

eCommerce System

- Created interactive GUI using Java and JFrame library
- Designed program flow using UML User and Class Diagrams
- Implemented design and developed unit test cases for desired functionality
- Improved object-oriented coding techniques

BJT Amplifier

- Designed and implemented inverting 50V Amplifier with 20kHz bandwidth using 2 stages
- Generated functional simulations using NI Multisim
- Analyzed physical circuit using oscilloscope and multimeter

Coffee Maker Hackathon

- Redesigned household coffee maker for smart pouring addition
- Strengthened collaboration and communication skills
- Improved documentation skills through constant progress reports

Predicting College Admission using R

- Analyzed historical data for college admission and determined driving factors using R
- Conducted descriptive analysis on variables in dataset to demonstrate correlation with admission
- Performed predictive analysis using Logistic Regression, SVM and Decision Trees models on admission
- Determined significant variables to the target variable as well as choose a champion prediction model

Determine Source of Complaints by Customers using SAS

- Created trend chart to track number of complaints by day and month
- Categorized complaint types and determined which occurred the most frequent
- Visualized percentage of resolved/unresolved complaints by State

- Investigated if company utilized resources equally to resolve complaints by frequency plot

Building User-based Recommendation Model for Amazon using Python

- Utilized Python libraries to explore movie rating's dataset with missing values
- Extracted basic statistics of dataset to gain deeper insight into its composition
- Decided on logical method to fill missing values in dataset to allow the training of the model
- Imported Surprise library to predict user ratings for movies using SVD algorithm
- Tested the recommendation model and achieved a high prediction accuracy

Mercedes-Benz Greener Manufacturing

- Utilized Python resources to explore Mercedes-Benz dataset to reduce the time cars spend on the test bench
- Reduced training features by removing zero-variance columns and applied label encoders to categories
- Conducted dimensionality reduction on training features using PCA to reduce training time for the model
- Developed highly efficient and accurate model to predict the time it takes a car to pass the testing

Sales Performance Analysis

- Utilized Tableau Desktop capabilities to visualize data in comprehensive manner to display to clients
- Blended separate data sources together to incorporate separate measures into a single visualization
- Created Bullet Chart using 2 measures from different data sources
- Implemented calculated field on color to determine if the monthly sales had exceeded the sales target
- Incorporated filter to show visualizations by the selected year

K-Means Clustering for Telecommunication Domain

- Utilized Apache Spark to implement K-Means cluster algorithm on telecommunication complaint dataset
- Incorporated Scala language in order to interact with Apache Spark through spark-shell
- Evaluated clusters based on training data and tweaked input parameters to improve model accuracy

Data Science Capstone (Diagnosing Diabetes in Patients)

- Pre-processed data by imputing missing data with variable mean
- Performed descriptive analysis by visualizing utilizing histograms, scatter plots, bubble charts and pie charts
- Conducted correlation analysis using a heatmap to determine factors that affect diabetes diagnosis
- Devised strategies to build a prediction model to classify whether a patient had diabetes
- Decided on cross-validation as an appropriate validation framework
- Tested various models using recall, AUC(ROC) curve, accuracy score etc. to choose the most accurate model

Lending Club Loan Data Analysis

- Utilized TensorFlow and Keras to implement ANN to classify if a customer meets loan criteria
- Conducted EDA on all variables to analyze their distribution and assess if outliers were present
- Performed Feature Transformation and Extraction on dataset to allow faster computation of the neural net
- Optimized hyperparameters using GridSearchCV to achieve an acceptable classification accuracy

Artificial Intelligence Capstone (Finance – Credit Card Fraud)

- Performed Exploratory Data Analysis (EDA) on entire dataset
- Utilized resampling techniques to remedy imbalanced dataset in during model training
- Assessed Naïve Bayes, Logistic Regression and SVM models using various evaluation metrics
- Tuned in-built parameters of tree-based models to help with the imbalanced dataset
- Conducted hyper-parameter tuning on an ANN model to attain the highest performance
- Implemented anomaly detection systems to differentiate fraud transactions from valid ones
- Transformed anomaly scores to engineered features to re-assess models for difference in performance

Education

Bachelor of Engineering in Computer Engineering — June 2018
Ryerson University, Toronto, ON

Data Scientist Masters Program — March 2020
Simplilearn – Online Certification Training Course Provider

Artificial Intelligence Engineer Masters Program June 2020

Simplilearn – Online Certification Training Course Provider