Abhijith Ramalingam

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SKILLS

Programming
Java • Python • JavaScript • Ruby
C# • C/C++ • MATLAB

Web Technologies
HTML/CSS • Bootstrap • jQuery
Angular • Socket.io • Node.js • Rails

Database
MySQL • Redis • MongoDB

Data Analysis
Numpy • Scipy • Scikit-learn
Pandas • Matplotlib • R • Hadoop

Embedded Systems
Arduino • PLC • FPGA

Other
Linux • Windows • Git • Eclipse

Wants to Learn
Computer Vision • Distributed Systems
Artificial Intelligence • Deep Learning

EDUCATION

University of Waterloo
BASc in Mechatronics Engineering
Expected May 2018 | Waterloo, ON
Cumalative GPA: 85%

Dubai Modern High School
Grad. March 2013| Dubai, UAE
Grade 12 Average: 97.75%

COURSEWORK

At University

Statistical Analysis
Data Structures and Algorithms
Real Time Systems   (ongoing)
Linear Systems and Signals   (ongoing)

Certified Online Courses

Intro to Financial Accounting
Computational Investing
R Programming
Exploratory Data Analysis
Getting and Cleaning Data
Data Scientist's Toolbox

Audited Online Courses

Intro to Hadoop and MapReduce
 Machine Learning

EXPERIENCE

INTERNATIONAL FINANCIAL DATA SERVICES   *R&D Developer*
April 2015 – Aug 2015 | Toronto, ON

- Worked within applied analytics on a big data engine to reduce large datasets by up to **20%** by applying transformation rules using **Hadoop** and **Rails**
- Developed a GUI and classifier in **Python** that uses **SVMs** and **Naive Bayes** algorithms to authenticate clients using ECG data from a Nymi Band
- Built a web based image viewer with **Node.js** ,**Socket.io** and **Bootstrap** to enhance user productivity with features like savable snippets, OCR and real-time heatmaps

HUBHEAD CORP   *JavaScript Developer*
Sep 2014 – Dec 2014 | Markham, ON

- Detected bugs by managing automated test suites on a **Jenkins** server
- Performed end to end and unit tests on a cloud product by writing browser automation scripts using **Angular.js** ,**Protractor** and **Selenium**
- Engaged in the SDLC using an agile approach to build a data quality solution

PROTECODE INC   *R&D Team Member*
January 2014 – April 2014 | Ottawa, ON

- Downloaded over **120,000** projects into a **MySQL** database from websites like Github and SourceForge by writing web crawlers in **C#**
- Optimized **SQL** queries of an internal data warehousing tool in **C#** which lead to a **25%** reduction in project processing time
- Migrated internal company databases by writing data-acquisition software

PROJECTS

CRIB   *Full Stack Developer*
June 2015

- Built entirely at AngelHack, Crib is a chat application integrated with a real time poll for users to discuss housing options using **Ruby on Rails** and **Web Sockets**

POTENTIOMETER   *Algorithms Developer*
March 2015

- Calibrated an Infrared sensor using an **Arduino** and **Python** to measure small distances as part of a statistics course project
- Used **Polynomial Regression** and **Nearest Neighbor Search** to train a data model to calculate distances, thus reducing maximum uncertainty to **0.15** cm

MARKET SIMULATOR   *Developer*
Oct 2014 – Nov 2014

- Developed a **Python** program that accepts trade orders for stocks at past dates to calculate profit using data from **Yahoo Finance API**
- Implemented investment strategies like Bollinger Bands which look for fluctuations in stock prices to generate trade orders
- Applied the **K-Means clustering** method to visualize data distribution and improve performance of trading algorithms