ABHIJITH RAMALINGAM

Programming Enthusiast | Aspiring Engineer | Energetic Learner
Passionate about Data Science & Software Engineering

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🔧 TECHNICAL

PROGRAMMING
Java • Python • C# • C++
DATA ANALYSIS
R • Pandas • Numpy • Matplotlib
scikit-learn • Hadoop
WEB
HTML • CSS • JavaScript
Libraries/Frameworks
jQuery • AngularJS • Flask • D3.js
Database
MySQL • MongoDB

🏛 EDUCATION

UNIVERSITY OF WATERLOO
BASc in Mechatronics Engineering
Expected Graduation: May 2018

📑 COURSEWORK

Certified online courses
Wharton School
Intro to Financial Accounting
Georgia Tech
Computational Investing
Johns Hopkins University
R Programming
Exploratory Data Analysis
Getting and Cleaning Data
Data Scientist's Toolbox

Audited online courses
Stanford University
Machine Learning
UC Berkley
Artificial Intelligence   (ongoing)
Udacity
Intro to Data Science
Intro to Hadoop and MapReduce
Machine Learning

At University
Statistical Analysis   (ongoing)
Data Structures and Algorithms

★ HOBBIES

Enjoys recreational maths, programming challenges and binge watching TV dramas.

Occasionally collaborates with friends to make short amateur films with a focus on graphics and special effects.

💼 WORK EXPERIENCE

JavaScript Developer | Sep-Dec 2014 | Markham,ON   HubHead Corp.
- Detected server-side bugs by managing automated test suites on a continuous integration server.
- Performed end to end tests on a cloud-based product by writing browser automation scripts.
- Improved user functionality by writing bug fixes.
- Engaged in the SDLC using agile methodologies to build a scalable data quality solution.
Technologies used : JavaScript • AngularJS • Git • Karma • Protractor • Jasmine • Jenkins

R&D Team Member | Jan-April 2014 | Ottawa,ON   Protecode Inc.
- Downloaded over 100,000 projects into a relational database from code hosting websites like Github and SourceForge by devloping web crawlers.
- Reduced processing time by 25% of an internal data mining tool by optimizing its SQL queries, thereby allowing projects to be added faster to the main database.
- Migrated internal company databases by writing maintainable data-acquisition software services.
Technologies used : C# • .NET Framework• MySQL • PostgreSQL • Linux • MS Excel • RegEx • SVN

</> PROJECTS

New York Subway Data Analysis | Data Scientist | Sept 2014
- Analysed NYC Subway and Weather data from external APIs to discover interesting patterns.
- Understood the distribution of the dataset by applying parametric and non-parametric tests like Welch's t-test.
- Applied unsupervised machine learning techniques to cluster data.
- Used visualisation libraries to understand how crowds moved between stations based on weather trends.
Technologies used : Python • Pandas • scikit-learn • Numpy • Matplotlib

Market Simulator | Devloper | Dec 2014
- Developed a program which accepted buy and sell orders for a given stock at dates in the past and a starting capital of $100,000 and then calculated how much money was made (or lost) based on historical data obtained from Yahoo Finance API.
- Investigated investment stratergies like Bollinger Bands which looked for events when stock prices went above or below their usual price. Based on events, buy and sell orders were generated whose performace was then evaluated using the above simulator.
- Used machine learning algorithms to understand and improve perfromance of trading algorithms.
Technologies used : Python • Pandas • Numpy • scikit-learn • Matplotlib

TransitCheck | Database Developer | April 2014
- Developed the front end for a web application that solves the day-to-day problems of unexpected delays in transit.
- Built a web crawler to routinely acquire information about TTC services which was then stored in a NoSQL database for fast retrieval.
- Exposed to backend technologies like Express and Node.js.
Technologies used : HTML/CSS • JavaScript • Java • MonogoDB • Bootstrap

Search in Pacman | Developer | April 2014
- Found paths through a maze world for a pacman agent by implementing search algorithms in Python as part of a course project for an online course on Artifical Intelligence.