

# ABHIJITH RAMALINGAM

Geek | Aspiring Engineer | Eager Learner

Curious about Data Science & Software Engineering

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## SKILL SET

### PROGRAMMING

GENERAL

Java Python C# C++

FRONT END

HTML CSS JavaScript

### TOOLS

LIBRARIES/Frameworks

jQuery AngularJS Flask

TESTING TOOLS

Protractor Karma Jasmine

DATABASE

MySQL MongoDB

### DATA ANALYSIS

R Pandas Numpy SciPy

MapReduce Hadoop

Matplotlib Scikit-learn

Machine Learning

Statistical Inference D3.js

## EDUCATION

### UNIVERSITY OF WATERLOO

BASc in Mechatronics Engineering

Expected Graduation: May 2018

### DUBAI MODERN HIGH SCHOOL

Graduated in 2013, 97.75% average

## 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](#)

Yale University

[Game Theory](#)

Udacity

[Intro to Machine Learning](#)

[Intro to Data Science](#)

[Intro to Hadoop and MapReduce](#)

### At University

[Statistical Analysis](#) (ongoing)

[Data Structures and Algorithms](#)

## WORK EXPERIENCE

### JavaScript Developer

HubHead

Sep-Dec 2014 | Markham, ON

- Managed automated test suites using a continuous integration server.
- Wrote browser automation scripts to perform unit and end to end tests.
- Wrote bug fixes for UI issues and improved user functionality.
- Engaged in the SDLC using agile methodologies to build a cloud-based data quality solution.

Technologies used : JavaScript AngularJS Git Karma Protractor Jasmine Jenkins

### R&D Team Member

protecode

Jan-April 2014 | Ottawa, ON

- Developed web crawlers to download over 75,000 projects into a relational database from code hosting websites like Github and SourceForge.
- Optimized the SQL queries of a data mining tool, thereby improving processing time by 25%.
- Migrated internal company databases by writing maintainable data-acquisition software services.

Technologies used : C# .NET Framework MySQL PostgreSQL Linux MS Excel RegEx SVN

## PROJECTS

### Market Simulator

- Built a stock market simulator by accessing historical stock data from Yahoo Finance API.
- Analyzes a given portfolio's performance by simulating stock trades over a fixed time period
- Applications include performance evaluation of algorithmic trading strategies and portfolio management.

Technologies used : Python Pandas SciPy Numpy Matplotlib

### New York Subway Data Analysis

- Analyzed NYC Subway data from external APIs to discover interesting patterns and trends.
- Applied statistical analysis techniques, machine learning, visualization libraries and MapReduce to mine and understand a large data set.

Technologies used : Python Pandas SciPy Scikit-Learn Numpy HTTP Matplotlib MapReduce

### TransitCheck

- Developed the front end for a web application which alerts TTC users of situational delays.
- Built a web crawler to routinely acquire information about TTC services which was then stored in a NoSQL database for fast retrieval.

Technologies used : HTML/CSS JavaScript Node.js Java MongoDB Bootstrap

### Braillestorm

- Lead a team which won a National Robot Olympiad by building and programming a robot with an easy to use interface for visually impaired people to print Braille.

Technologies used : LEGO Mindstorms C++

### Rubik's Cube Solver

- Made a Java program which accepts numbers as inputs for faces of a rubik's cube and then generates steps to solve the cube.

Technologies used : Java

### Mathematical Art

- Applied various trigonometric equations to generate beautiful figures using only straight lines

Technologies used : HTML Graphics Libraries JavaScript