

ABHIJITH RAMALINGAM

Passionate about Data Analytics, Robots and Software Engineering.

Website : abhijith1995.github.io
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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 PostgreSQL

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 with an average of 97.75%

COURSEWORK

At University

Calculus for Engineers

Linear Algebra for Engineers

Experimental Measurements and

Statistical Analysis (ongoing)

Data Structures and Algorithms

Certificates from 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 Machine Learning

Intro to Data Science

Intro to Hadoop and MapReduce

Machine Learning

WORK EXPERIENCE

JavaScript Developer



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 scalable cloud-based data quality solution.

Technologies used : JavaScript AngularJS Git Karma Protractor Jasmine Jenkins

R&D Team Member



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 an internal 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

- Accessed New York Subway data from external APIs to discover interesting patterns and trends.
- Applied statistical analysis techniques, machine learning, and MapReduce to mine a large data set.
- Used visualization libraries to better understand a complicated data set.

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

TransitCheck

- Worked as pair programmer to build the front end for a web application which alerts TTC users of situational delays.
- Built a web crawler to programatically acquire information about TTC services which was then stored in a NoSQL database for fast retrieval.

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

Braillestorm

- 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++

Robotic Turret

- Constructed a small robotic turret which automatically shoots small projectiles at nearby targets.
- Built a simple remote control interface to allows users to manually control the robot.

Technologies used : LEGO Mindstorms C++

Mathematical Art

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

Technologies used : HTML Grahpics Libraries JavaScript