

# VIRAJ RANJANKUMAR

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<https://virajranjankumar.github.io/>

## Computer proficiency in:

1. Amazon Web Services, SoftLayer and Google Compute Engine
2. Hadoop, Spark, Druid, Imply and Kubernetes
3. MATLAB, TensorFlow, ROS and Debian Linux

## Programming Languages

1. Python, PHP, JavaScript, Java, Swift, C, C#, R and Objective-C
2. Firm foundations in algorithms and data structures
3. Expertise in JavaScript, CSS, HTML and hybrid mobile app development
4. Professional work experience with Spring, J2EE, JSP, jBoss, Visual FoxPro and Cocoa.

## EDUCATION

### Bachelor of Applied Science, Honors in Electrical Engineering,

University of Waterloo, Waterloo, Ontario, Canada    *September 2014*

## WORK EXPERIENCE

### Senior Software Engineer

**Manulife**, Waterloo                      *January 2021 – Present*

1. Worked on team to implement user entitlements and CAIM across the product suite
2. Implement DevOps processes, packaging application in Docker and deployed on AKS

### Senior Software Engineer

**AIRM Consulting**, Winnipeg                      *January 2020 – October 2020*

1. Shepherded crop insurance visualization application from concept to production in 8 months
2. Integrated agricultural modelling, satellite imagery and data science output into unified platform
3. Implemented custom iOS mobile application for using SwiftUI

### Staff Software Engineer

**Ruckus Networks**, Singapore                      *April 2017 – December 2019*

1. Integrated streaming device data from MQTT brokers into the flagship analytics application

2. Designed analytics displays that presented anomaly behavior on the management dashboard
3. Implemented the entire payment card industry (PCI) data security compliance standard
4. Enhanced ETL using Spark, Druid, Imply and Hadoop and Kubernetes

## Software Engineer

**CtrlWorks**, Singapore      *August 2015 – March 2017*

1. Proposed and developed web application for route planning and robot navigation and teleoperation
2. Realized User Account Management, access control and diagnostic logging for web application.
3. Setup continuous testing and Jenkins build system for all software subsystems
4. Python and Django used on the robots and server. JavaScript and React.js used for front end and Postgresql as the database layer.

## Lead Software Engineer

**Dash Digital Group**, Waterloo, Ontario, Canada      *January 2011 – April 2014*

1. Built cross platform mobile apps and web interface for GPS enabled coupon application.
2. Planned and migrated client's single server infrastructure to AWS cluster servers.
3. Coordinated with client's HR department to import web captured data directly into their human resources software system.
4. Devised and implemented PHP based CMS web application hosted on Amazon Web Services. Used mySql and memcached for production deployments.

## Hardware Designer

**Panacis**, Ottawa, Ontario, Canada      *January 2010 – May 2010*

1. Evaluated the suitability of various battery management chips for upgrading existing circuits.
2. Tested and prototyped circuit designs for the engineering team.
3. Investigated faulty boards during production run.

## Web Services Developer

**ecoBee**, Toronto, Ontario, Canada      *May 2009 – August 2009*

1. Conceived and implemented methods of graphing and visualizing users energy usage data.
2. Prototyped a service which allowed users to communicate with their thermostat through Twitter.
3. Implemented a component which helped customer support easily locate and change a user's profile information, thereby improving customer service and satisfaction.
4. Worked on a Java codebase using Spring framework. Front end was mainly jQuery

## Database Developer

**Telecor**, Mississauga, Ontario, Canada      *September 2008 – December 2008*

1. Designed and implemented service and application to help users coordinate print jobs.
2. Analyzed and improved on bottlenecks in existing applications, enhancing workflow.
3. Developed features to automate common tasks in the invoicing process.
4. Obtained valuable skills in negotiation when working directly with end users and supervisor
5. Worked with Microsoft FoxPro, Access and Crystal Reports.

## Web Software Developer

**Riptown.com Media**, Toronto, Ontario, Canada      *January 2008 – April 2008*

1. Implemented AJAX functionality on a major commercial website called Bodoglife.com using Java, JSP, DWR, jQuery and CSS. Gained experience in deploying through jBoss.
2. Modified entire application stack to allow for internationalization.
3. Reorganized navigation and categorization of internal wiki to encourage usage.

## Software Developer

**CREZ Basketball System**, Waterloo, Ontario, Canada      *May 2007 – August 2007*

1. Developed method of capturing data for the flagship product through tablet PC.
2. Implemented features to export data in various file formats directly from the application.
3. Provided troubleshooting and fixed problems during live customer demonstration.
4. Worked with C#, SQL Server and Visual Basic .net