

## **PRAKASH NATARAJAN**

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### **EDUCATION**

#### **Master of Science in Computer Science and Engineering**

University at Buffalo, State University of New York (GPA 3.6)

#### **Bachelor of Engineering in Electronics and Communication**

Anna University, Chennai, India (First class with Distinction, WES evaluated GPA 3.48)

**Dec 2015 (expected)**

**Jun 2007 - May 2011**

### **TECHNICAL SKILLS**

Languages : Python, Java, Javascript, AngularJS, C#, ASP.NET, Swift, C, C++, Android, HTML5, CSS.  
IDE Tools : Sublime Text, Xcode, Eclipse, Android Studio, Visual Studio, IPython.  
Platforms : Mac OS X, Windows, Ubuntu, Red Hat Linux.  
Others : Git, GitHub, JSON, Vim, JSON, SQL server, Sass, Jekyll.  
Certification : MCTS .NET framework 4 web applications development from Microsoft.

### **PROFESSIONAL EXPERIENCE**

#### ***Software Development Engineer Intern***

**Jun 2015 – Aug 2015**

##### **Amazon Web Services(AWS) Mobile – Lambda team, Seattle, WA**

- Developed a framework for dynamic UI rendering from the configuration file and data rendering by an java interface and abstract class implementation.
- Reduced the time of adding the support for new application from two weeks to just 2 days and enabled easy code maintenance by abstracting the logic to JSON configuration file.
- Designed the front end with AngularJS, backend with Java and scripting for accessing DynamoDB is done in python

#### ***Programmer Analyst***

**Jun 2011 - Mar 2014**

##### **Cognizant Technology Solutions (P) Ltd, Chennai, India**

- Enhanced the dashboard which was used for displaying the time critical defects, collaborated with quality assurance team for running and maintaining automated scripts and integrated the results with portal.
- Developed and enhanced the MVC based .NET framework 4 application in Insurance domain
- Created a mailing windows service to email the screenshot of the defect with its further details of the exception and assisted in database server migration from SQL server 2008 to 2012.
- Stack: ASP.NET, C#, VB.NET, Javascript.
- Owned 3 insurance industry applications for underwriters and handled the production level tickets for external customers.

### **ACADEMIC PROJECTS**

#### **Priority Scheduler and Virtual memory for Pintos:**

**Oct 2014**

Implemented the kernel priority scheduler for Pintos operating system and handled priority inversion with priority donation of high priority threads to low priority threads and also designed the virtual memory for the Pintos.

#### **Object Oriented top-down Parser:**

**Sep 2014**

Designed a parser with a team of two in Java that translates a program into JVM byte codes to generate the object and sequence diagram of the parser in Jive exactly as specified in the requirements of the grammar.

#### **Functional and Logic Programming:**

**Sep 2014**

Executed alpha equivalence of lambda calculus in standard meta language with functional programming.

Implemented beta and eta equivalence of lambda calculus in Prolog with logic programming. Designed a program in Prolog to backtrack and find the possible paths from one location to another.

#### **Android Simple and Group Messenger:**

**Feb 2015**

Developed group messenger with FIFO ordering by using Chord, a peer-to-peer distributed hash table, and using DynamoDB like table.

Stored all messages in the android content provider using SQLite and also supported recovery on crash feature for the messenger.

#### **Stock Volatility using Map Reduce:**

**Mar 2015**

Calculated the volatility of stocks using java Hadoop, Pig, Hive, Hbase, Accumulo and compared its performance.

#### **Handwriting Recognition:**

**Mar 2015**

Using numpy library designed a hand writing recognition system using feed forward neural networks in python. It successfully classified the handwritten number with accuracy of 87%.

### **OPEN SOURCE CONTRIBUTION**

- Gave a group header selector event in AngularJS for elements that are grouped together in ui-select dropdown for ui-select.
- Contributed to CTCI GitHub repository in Swift programming language and I also stand as the 3<sup>rd</sup> highest contributor.
- Managing AlgorithmCrackers organization with more than 10 stars in one of its repo.

### **RELEVANT COURSES**

Data Mining, Data Intensive Computing, Operating system concepts, Distributed Systems, Design and Analysis of algorithms, Fundamentals of Programming languages, Software Engineering, Machine Learning.