154 Englewood Avenue, Buffalo, New York – 14214

# Manoj Mariappan

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<u>Objective:</u> Graduate Student enthusiastic about using the knowledge and work experience gained in the computer science realm to work for an organization while building towards career goal

Available: 01/01/2015

#### **Education Summary:**

Master of Science, Computer Science:

Aug 2013 - Current

School of Engineering and Applied Sciences, University at Buffalo

**Bachelor of Engineering, Computer Engineering:** 

Aug 2007 - Jun 2011

SIES Graduate School of Technology, University of Mumbai, India

## **Courses:**

Operating Systems, Modern Networking concepts, Distributed Systems, Information Retrieval, Algorithm Analysis and Design, Computer Organization and Architecture, Software Engineering

**Technical Skills:** 

Application Software: Eclipse Kepler, Netbeans 7.0, Visual Studio 200x, Aptana Studio 3, Microsoft SQL

Server 200x, Microsoft 200x, SmartSVN, TortoiseSVN, Wireshark, GDB, Git, Android

Studio

Languages: C, C++, Java, Android Programming, JSP, Servlets, ASP dotNet C#, HTML5, CSS3,

XML, JavaScript(Libraries such as jQuery, sproutcore, backbone.js), Ajax, SQL

**Operating Systems:** Windows 98/XP/7/8, Macintosh OS X, Linux/Ubuntu 12.04

# **Work Experience:**

<u>IDfy</u> Software Developer Intern Mumbai, India

June 2014 – Aug 2014

A Background verification company that makes use of the online medium to help institutions and companies verify the credibility of associated people.

Addressify

• Developed an android application which would be used by field agents to verify the authenticity of individuals by clicking pictures, recording locations, filling in forms with related questions, etc. The application was written in Java. Used AWS to store images at regular intervals when internet was available. Location information was sent periodically to the server so that the Managers could keep track of the field agents and assign new tasks based on their current location. Libraries such as BeardedHen, ActiveAndroid were used

**Zeus Learning**Web Developer

Mumbai, India July 2011 – July 2013

An eLearning company based in Mumbai involved in creating innovative e-Learning solutions. Have been part of a team which helped Zeus Learning earn two CODiE 2012 Awards.

**Discovery HTML5 Conversion** 

Converted existing interactive applications in flash for high school and college students, which enable students to
learn, understand and experiment with concepts of Science and Math, to HTML5 based ones to extend support to
Apple products. Along with HTML5, CSS3 and JavaScript, libraries such as jQuery and backbone were used. The
applications also handled accessibility concerns

#### Resume Builder

• Developed Site pages and backend functionalities for a Job Portal which provides users platform to build resumes and cover letters, track appropriate job positions, maintain an online schedule of activities for job search, etc. Technologies used were SQL, ASP.NET C#, JavaScript, jQuery

Learning Express Report Portal

• Developed website to report Site usage statistics of Job & Career accelerator to content authors and site managers. Provided site managers and content authors with capability to manage site details such as permission levels, access to information, etc. Technologies used were SQL, ASP.NET C#, JavaScript, iQuery

#### Projects:

## Research Paper on Intrusion Prevention System for SIP by Third Party Attackers, Reliance Comm. Ltd., India

 Detailed study of Session Initiation Protocol, IP Multimedia Subsystem. Acceptance of Proposed security model "TOUCH ME NOT" by ACSAM 2011, International Conference on Numerical Analysis and Applied Mathematics

#### **Information Retrieval:**

- Created application to Parse, Index and run queries on Wikipedia documents to return the ones with highest relevance
- Used Lucene to analyze and modify TREC queries to retrieve documents with maximum relevance
- Implemented Solr and servlets to index and provide user with search results from three distinct sources namely: Wikiquotes, Wikinews and Wikipedia. Results from disparate sources were made relevant to each other

### **File Transfer Application:**

• Created a hybrid network application implementing client-server and peer-to-peer communication in which clients register with server and registered clients can then connect to each other to upload and download files, using basic System calls in C++ on a Linux system

# **Operating Systems:**

• Implemented synchronization primitives (locks, condition variables, semaphore), a virtual file system which enables a user program to access files in the system (open, read, write, close) and system calls for user processes (fork, execv, getpid, exit) on OS161 (a simulation of operating system)

## **Routing Protocol Implementation:**

• Implemented Distance vector routing protocol by passing routing information as UDP packets between hosts run on different Linux servers. A crash simulation was automatically detected and change in network was propagated to the peers through the routing information

# **Transport Protocol Implementation:**

• Implemented transport protocols Selective repeat, Go-back-N and Alternating-bit on a pre-existing simulator. The transport protocols made sure the information sent was successfully transmitted across the link through varying conditions of error and corruption rates