#### **MUTHUKUMARAN PK**

6815, 6<sup>TH</sup> AVENUE, APT 1R, BROOKLYN, NY 11220 • (347) 209-8423 • mp4155@nyu.edu • Website: muthukumaranpk.com

### **EDUCATION**

New York University Tandon School of Engineering, Brooklyn, New York

May 2017

Master of Science in Computer Engineering, GPA: 3.833

Relevant Coursework: Software Engineering, Data center and Cloud Computing, High Speed Networks and Computer Architecture

**Honors:** Graduate Merit Scholarship (2015-2017)

## Sri Manakula Vinayagar Engineering College, Pondicherry, India

May 2015

Bachelor of Technology in Computer Science and Engineering, GPA: 3.42

Relevant Coursework: Design and Analysis of Algorithms, Data Structures, Object Oriented Programming Languages and Artificial Intelligence

**Honors:** Perunthalaivar Kamarajar Undergraduate Merit Scholarship (2011-2015)

## **TECHNICAL SKILLS**

Languages: Proficient: Java, HTML

Intermediate: CSS Beginner: JavaScript

Technologies: Android (Intermediate) and Machine Learning (Beginner)

Tools: Android Studio, MATLAB and Sublime Text

#### **EXPERIENCE**

Edu.chat, New York, NY

June 2016 – August 2016

- Android Developer Intern
- Collaborated with a team of 3 Android engineers in an agile development environment and developed a stable, robust and highly responsive Android app for the Academic messaging platform
- Acquired hands on experience in working with third party libraries and frameworks such Socket.IO, Butter Knife, oKHttp and Firebase.
- Worked with various dynamic and industry standard components such as Fragments, Recycler View, Constraint Layout and Grid Layout.

## **ACADEMIC PROJECTS**

# Load-balancing in Fat-Tree Data Center Networks

November 2015

- Developed a Python script for SDN controller in Mininet using Least Loaded Routing algorithm to distribute the traffic evenly to all the available links in the data center
- Implemented ARP spoofing technique so that ARP reply is sent by the controller instead of the receiving host to the sender in order to reduce the round trip time and data traffic

### Offline browser with context aware capabilities

December 2014 – April 2015

- Developed Offline browser in .NET using C#, a browser that can work offline by downloading contents that may be needed by the user in the future while the connection is online, using a prediction engine
- Implemented context aware site prediction module which predicts the sites that the user may visit in future by analyzing the already visited sites by the user and taking into account factors such as hit count, time spent in a particular site and type of the site(dynamic content or static content)

## **PERSONAL PROJECTS**

Death App Ongoing

 Developing an Android App that will provide users with information such as how many days are left in their life and what day of their life is this day (nth day) in an effort to provide a tool for appreciating and making better use of the present moment.

Weather App Ongoing

• Developing an Android App that will provide users with current weather and relevant suggestions leveraging the weather information provided by the Forecast.io API.

## ADDITIONAL INFORMATION

Online courses: Introduction to Physics (Udacity) and Introduction to Calculus and Machine Learning (Coursera) *Interests*: Solving coding challenges in Code chef, Meditating and playing Chess