**MUTHUKUMARAN P K**

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**EDUCATION**

**New York University Tandon School of Engineering**, Brooklyn, New York May 2017

*Master of Science* *in Computer Engineering,* GPA: 3.9

**Relevant Coursework:** Internet Architecture and Protocol, High Speed Networks

**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 Algorithm, Data Structures

**SKILLS**

* **Programming Languages**: C/C++, Java, HTML, CSS, JavaScript
* **Database Systems**: MySql
* **Tools**: Microsoft Visual Studio, Mininet

**EXPERIENCE**

**Gleaming Software,** Pondicherry, India March 2014 – May 2014

*Assistant Software Developer Intern*

* Collaborated with a team of 4 people and worked on a Java based employee database search project. Developed an algorithm which can not only search with less latency and processing power, but also can provide a precise list of suggestions if the entry in the search field is not found in the database
* Developed the part of suggestion module, which is used to obtain the percentage match of the entry in the search field to the entries in the database
* Determined the latency involved with the information retrieval from the database and the accuracy of the suggestions provided

**ACADEMIC PROJECTS**

**Load-balancing in Fat-Tree Data Center Networks** November 2015

* Developed a 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 so that ARP reply is sent by the controller instead of the host in order to reduce the latency and traffic
* Employed the logic of adding entries to OVS switch tables at the start of each flow using above mentioned algorithm to make sure that the Packet-in message is not sent to the controller for each packet and thus prevent the controller from overloading

**Offline browser with context aware capabilities**  December 2014 – April 2015

* Developed Offline browser in .NET. Created 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 modules such as site prediction which predicts the sites, that the user may visit in future and dynamic downloading which decides the optimal bandwidth for downloading the data so that, there is no effect on the user’s browsing experience

**ADDITIONAL INFORMATION**

* *Honors and Awards:*

Recipient of Perunthalaivar Kamarajar Scholarship 2011-2015

Recipient of merit based Scholarship (5000 dollars per year) at NYU Tandon School of Engineering 2015-2017

* *Sports clubs:* Captain of College Cricket team 2012-2014
* *Interests:* Meditating, Playing chess, Puzzle solving and taking Mathematics and Physics courses
* *Language skills:* Fluent in Tamil, Fluent in English and Listening level fluency in Hindi