Akash **Agarwal**

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Education

University of Florida	*Gainesville, USA*
MASTER OF SCIENCE IN COMPUTER AND INFORMATION SCIENCE	*Aug 2016 - Dec 2017 (Expected)*

- CGPA: 3.89/4.0
- Courses: Distributed Operating Systems Principles, Introduction to Data Science and Advanced Data Structures

Manipal Institute of Technology	*Manipal, India*
BACHELOR OF ENGINEERING IN COMPUTER SCIENCE	*Aug. 2009 - May 2013*

- Courses: Computer Networks, Relational Database Management, Software Engineering, Microprocessors, Data mining and Object oriented programming.

Skills

Languages	Core Java, J2EE, C++, C, Python, HTML, CSS, PHP, Javascript, Backbone.js
UT Framework	JMockit, Mocha, Sinon.js
Database	MySQL, PostgreSQL
Other technologies	Jboss EAP 6.1, Node.js, Apache Solr, Docker Engine, Grunt Task Runner

Experience

JUNIPER NETWORKS	*Bangalore, India*
SOFTWARE ENGINEER 2	*June 2013 - Aug 2016*

- Juniper Award of Excellence for implementing the VPLS service create and edit workflows in CSD.
- Full stack developer for Connectivity Services Director to quickly design and provision new MPLS and Carrier Ethernet Services.
- Developed UI in MVC model using ExtJS, building ReST apis for communication and writing EJBs to process business logic.
- Developed unit test cases for complete coverage of both the frontend(JavaScript) and backend(Java) code.
- Designed workflows for provisoining of edge services like Carrier Grade NAT and Stateful Firewall on the EDGE Services Director.
- Implemented XPath based device notification and Apache Solr based inventory search.

JUNIPER NETWORKS	*Bangalore, India*
SOFTWARE ENGINEERING INTERN	*January 2013 - May 2013*

- Contributed to the implementation of topology using OpenNMS where we had to configure OpenNMS config to generate topology maps.
- Created ReSTful services for older servlet based apis.

Academic Projects

NIST IAD DSE Pilot Evaluation Performed the cleaning and analysis of traffic data as part of NIST IAD DSE Pilot evaluation. We also made decisions about future values of a variable of interest like predicting a traffic incident in an upcoming time interval. This made extensive use of the python libraries pandas (for data manipulation) and scikit-learn (for machine learning).

Device Driver for Internet of Things in XINU Designed device drivers in XINU and enabled communication between sensors and actuators connected to different Beaglebone devices through a cloud application. UDP Sockets and REST APIs were used for different levels of communication. This is a small scale implementation of how IOT functions.

PageRank with AWS EMR Calculated the page rank of most important Wikipedia pages using AWS Elastic Map Reduce with Hadoop 2.7.2. It involved extracting valid wikilinks and generating the adjacency graph and then applying the PageRank algorithm on it.

Care n Share Developed an online charity portal 'Care n Share' using HTML, CSS, PHP and MySQL, under OS4Ed Pvt. Ltd., Kolkata. This provides a platform for people to access details of charitable organizations and make donations to the organizations of their choice.

Extracurricular Activity

2016	**Member**, Asha at University of Florida	*Gainesville, USA*
2011	**1st Prize**, Deglitch, IEEE Tech Weekend 2011	*Manipal, India*
2011	**1st Prize**, City design contest - Swades, Tech Tatva 2011	*Manipal, India*
2011	**Volunteer**, Art of Living Foundation	*Manipal, India*