Rahul Ethiraj

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EDUCATION

University of Southern California - *Los Angeles, CA*
Masters in Computer Science | Dec 2019
GPA: 3.57/4.0

Amrita Vishwa Vidyapeetham University - *Coimbatore, India*
Bachelors in Computer Science & Engineering | May 2015
GPA: 3.56/4.0 (*Distinction*)

SKILLS

- **Networking** : CCNP, CCNA (R&S); Data Analysis, Data Center, TCP/IP, QoS, Load Balancing, Cisco IP routing & switching protocols, Cisco System Products; VMware ESXi, vCenter, vSphere; FC, SAN, FCoE, iSCSI
- **Hardware** : Cisco UCS (B and C series); Nexus 7k, 5k, 3k, 2k series, 1000v; MDS 9000 series; Brocade SAN switches
- **Technical** : Java, C, C++, Python, PHP, SQL, MySQL, Unix, JavaScript, XML, JSON, AJAX, jQuery, CSS3, HTML5, Bootstrap, AngularJS, React Native, UCS Central, Hyper-V, Red Hat, SUSE, Spark, AWS EMR, s3, Glue, Athena
- **Tools** : Android Studio, NetBeans, GIT, SVN, AWS-Elastic Beanstalk EC2/S3, Google Cloud, Lambda, Photoshop, Visio, SciPy, Weka, Pandas, NumPy, MATLAB, Scikit-Learn, TensorFlow, GNS3, Wireshark, ASP.NET, Aegis
- **Soft skills** : Global delivery, customer interaction, mentoring, network consulting, team building

WORK EXPERIENCE

A9.com, Amazon, Palo Alto – *Software Engineer, Intern - Elastic Map Reduce cluster, s3, Glue, Athena, QuickSight* Sep-Nov 2019
- Designed a big-data pipeline to parse Amazon Ad Exchange Experimentation Framework logs using Spark.
- Developed the pipeline to parse 6TB of logs each hour and compute raw, inferential statistical metrics such as p-value and confidence interval without re-processing entire data. Improved performance of jobs by 40% using HDFS and caches.

Cisco Systems, San Jose – *Software Engineer, Intern – Python, PyCharm, PyATS, CICD* May-Aug 2019
- Developed automated testing for features of the Adaptive Security Appliance Next Generation Firewall platform.
- Installed and executed testing of Umbrella connector against NGFW platform to maintain and enhance overall quality. Investigated test failures and assisted with bug investigation and reproduction in complex network-security topologies.

Research Assistant at USC – *Sol Price School of Public Policy - Python, Machine Learning models* Dec 2018-May 2019
- Assisted with cleaning a full-text dataset of all House and Senate committee hearings from the early 2000s to present.
- Performed web scraping, text analysis and machine learning on a hand-coded random sample of the dataset.

COCOMO Software Engineering at USC – *Intern - Java, Eclipse* May-Jul 2018
- Supported project members in research involving a software effort cost estimation model originally developed by Dr. Barry Boehm – in a highly transparent Agile environment.
- Managed a team of three and re-implemented COCOMO in Java so it is accessible/executable on any OS platform.

Cisco Systems, Bangalore – *Engineer, Server Virtualization - C, C++, Python* Jul 2015-Dec 2017
- Delivered solutions and resolved problems for Cisco clients through computer programming and systems engineering.
- Performed troubleshooting on large scale data center networks (Linux, storage, NTP, OS/BIOS/firmware,VM migrations) and scripting to automate diagnosis of problems in network.
- Provided consultation support, filed bugs and tested new software release thus improving serviceability of the product by working with engineering teams on fixing bugs. Decoded core dumps to analyze and verify root cause of issues.
- Collaborated with different vendors like Dell, VMware, Microsoft, Citrix, Redhat, VCE, EMC and Netapp to fix complex multi-vendor environmental network, server and storage issues.

Cisco Systems, Bangalore – *Intern - Python* Jan-Jun 2015
- Completed practical training and assisted in ongoing projects (automation and RMA reduction) through scripting.
- Designed *CYK, LR parsers,* and *shift-reduce*, to parse tech-support bundles from Unified Computing System (UCS) and extract required information for Big Data Broker (BDB).

ONGC, Chennai – *Intern - Microsoft .NET framework-ASP.NET & MS SQL Server* May-July 2013
- Constructed a rich web-based Intranet Mail for sending and receiving ONGC (Oil and Natural Gas Corporation) Ltd. ISO formatted forms thus resulting in prevention of traversing ISO forms outside the organization.

PROJECTS

LA times News Search Engine – *Java, PHP, Javascript, Python, jQuery, Apache Solr, Lucene, jSoup* | Github Jul-Dec 2018
- Devised a search engine to search through 15000 news webpages. PageRank and TF-IDF weighting have been used to rank different search results retrieved from Solr, having features such as spell checking, auto complete and snippets.

Gender Transformation using Adversarial Networks - GANs – *Python, PyTorch* | GitHub May-Jul 2018
- Implemented a generator network that realistically transforms the gender of a person out of curiosity for what famous *Marvel men stars* would look like if born with two X chromosomes.

Travel and Entertainment Search App – *Node.js, Java, JS, jQuery, Bootstrap, Angular, AWS* | Website Jan-May 2018
- Developed a Web and an Android application, which allows users to search for a place using a live JSON API, view its information, save it as a favourite and/or post about it on Twitter. The web application is hosted on Amazon Cloud.