

# Rahul Ethiraj

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## EDUCATION

**University of Southern California - Los Angeles, CA**  
Masters in Computer Science | Expected Dec 2019  
GPA: 3.56/4.0

**Amrita Vishwa Vidyapeetham University - Coimbatore, India**  
Bachelors in Computer Science & Engineering | May 2015  
GPA: 8.91/10.0 (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
- **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
- **Soft skills** : Global delivery, customer interaction, mentoring, network consulting, team building

## WORK EXPERIENCE

**Research Assistant at USC – Sol Price School of Public Policy** Dec 2018 - May 2019

- Assist with cleaning a full-text dataset of all House and Senate committee hearings from the early 2000s to present.
- Web scraping, text analysis and machine learning based on a hand-coded random sample of the dataset.

**COCOMO Software Engineering at USC – Intern** May - July 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** July 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.
- 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.
- Decoded complex logs and core dumps to analyze and verify root cause of issues.

**Cisco Systems, Bangalore – Intern** Jan - June 2015

- Completed practical training and assisted in ongoing projects (automation and RMA reduction) through scripting.
- Designed CYK, LR parsers, and shift-reduce in Python, 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](#) July – 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-July 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.

**Classification of USC Department of Public Safety(DPS) incidents log – Python** | [Github](#) May-July 2018

- Cleaned and processed DPS records to classify each incident on a scale of 1-5 based on the level of danger. Classifiers: Bag of Words, Multinomial Naive Bayes and Support Vector based on TF-IDF scores, LSTM Recurrent Neural Networks.

**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.

**Interactive Yoga poses correction – MATLAB** | [Github](#) Oct- Dec 2014

- Partially devised an articulated human body model that tracks human motion in a video sequence and suggests corrections if the user is performing the yoga pose incorrectly.