

# ESHWAR N KUMAR

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## EDUCATION

### University at Buffalo, State University of New York

Master of Science in Computer Science & Engineering

Coursework: Analysis of Algorithms (Fall 2020), Operating Systems (Fall 2020)

New York, USA

August 2020 - February 2022

### Visvesvaraya Technological University

Bachelor of Engineering in Electronics & Communication (GPA: 3.57/4.0)

Bangalore, India

August 2013 - July 2017

Coursework: Computer Communication Networks, Data Structures and Algorithms, Operating Systems, Computer Concepts and Programming

## TECHNICAL SKILLS

- **Programming Languages:** Java, Python, C, C++, HTML/CSS, JavaScript
- **Tools and Technologies:** MySQL, MongoDB, ELK Stack, Postgres, Spring Boot, AngularJS, Flask, RESTful Web Services, Docker, Kubernetes, AWS, Pandas, Keras, TensorFlow, CI/CD, Jenkins, CircleCI, Git, GitHub, Bitbucket, Agile/Scrum, Eclipse, PyCharm, Spring Tool Suite

## PROFESSIONAL EXPERIENCE

### Cisco Systems

August 2019 - August 2020

Full Stack Software Engineer (CX-Customer Experience)

Bangalore, India

**Technologies Used:** Java, Spring Boot, REST, MySQL, AngularJS

- **Asset Groups:** Designed and Developed a Microservice that can help customers easily classify their products by creating their groups based on factors like location, product type, etc. during the onboarding stage of a customer to the Customer Portal.
- **User-Initiated Scan:** Developed a microservice with the help of which customers can manually initiate a vulnerability scan for one or more devices from the UI based on the requirement.
- **Automated Elastic Search Index Deployment (AEID):** Created a docker image that pulls the latest code from bitbucket repository and deploys the indices of all the Microservices present as a part Customer Portal to Elastic Search saving more than 40% of the time taken by the DevOps team to make deployments during release.

### Cisco Systems

August 2017 - July 2019

Software Development Engineer I (Webex Meetings)

Bangalore, India

**Technologies Used:** Python, Flask, Docker, InfluxDB, DevOps

- **CMR Analyzer:** Designed and Developed a highly scalable dockerized service called Cisco Meeting Room(CMR) Analyzer that helps test engineers across the globe to resolve pager calls with minimal human intervention, thereby reducing the average turnaround time of pager alerts by 50%.
- **Jira Bot:** Designed and Developed an NLP based ChatBot, which takes input (meeting details) from the user and collects the debug information, analyzes the data and creates a Jira issue if required.
- **CMR Infrastructure Validator:** The tool built using python ensures that all the infrastructure present in the resource application is in perfect working condition. It blocks the faulty devices from being used by the tests to minimize the number of pager alerts which occur due to poor infrastructure.
- **Micro-Services Health Check Monitor:** Developed a tool that continuously monitors the health of 54 microservices and immediately posts back the status of the non-active ones to a Teams Space.

### Cisco Systems

January 2017 - June 2017

Software Engineering Intern (Service Provider Routing)

Bangalore, India

**Technologies Used:** Python, PyATS, NCS4k, FireX

- **NCS4k Single/Multi Chassis Unit Test Automation:** NCS4k (Network Convergence System four thousand) is a router completely developed by Cisco. As a backend engineer, I wrote scripts in Python and performed Unit Testing to automate approximately 80% of the test cases. The team is using these scripts rigorously to verify the functionalities of the router and to find bugs in the software at a faster rate.

## ACADEMIC PROJECTS & PUBLICATIONS

**Performance Study of LTE Scheduling algorithms** | C++, ns3(Network Simulator 3<sup>rd</sup> version)

March 2016 - May 2016

- Analyzed the performance of Long Term Evolution(LTE) scheduling algorithms such as Round Robin, Proportional Fair, Maximum Throughput, and Blind Equal Throughput in a multicellular network on the impact of handover. Based on the simulation performed, I was able to conclude that the Round Robin Scheduling algorithm provides the least latency and the highest system throughput when compared to the others.
- Published the research work done during the project in the International Journal of Advanced Research in Electrical, Electronics, and Instrumentation Engineering (IJAREEIE) journal. (Link)

## CERTIFICATIONS, AWARDS, AND EXTRACURRICULAR ACTIVITIES

- Oracle Certified Java Associate
- 2 Cisco "You Inspire" and 1 "You Amaze" Awards
- Speaker - Cisco - Vani Toastmasters Club
- Organizer - Give Away activity for the kids in Parikrma NGO
- Organizer - IoT & Line follower robot workshop at Cisco and Bangalore Institute of Technology
- Recipient - MHRD National Level Scholarship
- State 20<sup>th</sup> rank (95.33% overall marks and 100/100 in Chemistry) - 2<sup>nd</sup> Pre-University Examination, Recipient - MHRD National Level Scholarship