# SANKALP GUNTURI

Mountain View, CA

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## Education

**Carnegie Mellon University** **Aug 2022 – Dec 2023**
*Master of Science in Software Engineering* *Mountain View, CA*

**K L University** **Jun 2015 – May 2019**
*Bachelor of Technology in Electrical & Electronics Engineering (Gold Medal Awardee)* *Andhra Pradesh, India*

## Technical Skills

**Languages**: Python, C, Bash, JavaScript, NodeJS, Express, HTML, CSS, Selenium, Java, REST, Groovy
**Developer Tools**: Jenkins, VIM, VS Code, VMware vSphere, PyCharm, JetBrains, Render, Circle CI
**Technologies/Frameworks**: Linux (GNU), Git, MongoDB (NoSQL), CI/CD, JQuery, Bootstrap

## Work Experience

**DevOps Engineer – Cisco DNA Center** **Jul 2021 – Jun 2022**
*Mindtree* *Bengaluru, India*

- Spearheaded the CICD workflow for Upgrade, 3–Node High Availability, Backup–Restore, Disaster Recovery scenarios, reduced manual efforts by 50% by creating robust pipelines using Jenkins.
- Defect detection in the CICD pipelines improved by 20% per integration window.
- Implemented Docker-Containerization of 30% Jenkins nodes, resulting in increased reliability of CICD pipelines.

**Firmware Engineer – Cisco Nexus 7000/9000 Switches** **Oct 2019 – Jun 2021**
*Mindtree* *Bengaluru, India*

- Enhanced firmware by adding important interrupts to On-Board Failure Logging (OBFL) as a feature for drivers affecting across all the NXOS family of switches.
- Debugged and peer-reviewed nearly 30 defects on stats manager and stats client anomalies.
- Contributed to development of pyATS script using Python for automating test cases on switches.

## Projects

**Emergency Social Network (Full-Stack Development)** **Aug 2022 – Present**

- Collaborated with a team of 5, applied hybrid Agile practices like Scrum, Kanban and XP in a fast-paced environment.
- Adopted MVC Architecture, RESTful APIs & Object-Oriented Analysis & Design to generate UML diagrams & VOPC for use cases.
- Designed and implemented a clean and responsive UI/UX experience using CSS3, Bootstrap, Mustache and EJS.

**Optimization of the Knapsack Problem using Genetic Algorithm** **Oct 2022 – Present**

- Applied "Tournament Selection" method to compute the fitness function using SIMD intrinsics for FMA, MAX and CMP operations.
- Optimization used for Crossover & Mutation functions: SIMD Vectorization, Parallelism, Memory Hierarchy Management & Multi-threading.

## Publications

**IoT based Domestic Energy Monitoring Device (IEEE, 9 citations)** **Apr 2018**

- Collaborated with Torrent Power R&D, identified opportunity to integrate IoT to enhance transparency in the system.
- Designed and implemented a prototype circuit and Android App that shows kWh usage in time intervals.

**Academic Papers on Electric Vehicles & Fuel-Cell Vehicles** **Jul 2018 – Oct 2019**

- Analysis & Design of Discharging Circuit for Aux. Battery Systems in Electrical Vehicles (IEEE, 1 citation)
- Wide Gain Bidirectional Converters for Energy Storage System of Fuel-Cell Vehicles (IOP)

## Leadership Experience

**Event Coordinator, Google Developer Student Club** **Oct 2022 – Present**
*Organized events & workshops with the Google Community impacting around a 100 students* *Carnegie Mellon University*

**Student Leader, Carnegie Mellon ECE Graduate Organization** **Oct 2022 – Present**
*Collaborated events with Pittsburgh & SV campuses for ECE cohort comprising 1000 students* *Carnegie Mellon University*

**Treasurer, IEEE Student Branch** **May 2017 – May 2019**
*Elected twice for the Executive Committee, KLU Chapter, Asia-Pacific representing over 3000 students* *K L University*

**Coordinator, TEDx** **Mar 2017**
*Launched the first TEDxKLU on the theme "Emerge": ted.com/tedx/events/21092* *K L University*