

# APEKSHA GAONKAR

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## EDUCATION

**University of California - San Diego** MS in Electrical and Computer engineering (**Incoming**) California, US  
Major in Machine Learning and Data Science Sep 2023 – June 2025

**PES University**, Bachelor in Electronics and communication engineering , GPA: 9.19/10 Bengaluru, India  
Minors in Computer Science Aug 2017 – May 2021

## TECHNICAL SKILLS

**Programming Languages:** Python, C++, Bash, C.

**Tools and Libraries:** TensorFlow, Keras, Pandas, OpenCV, Matplotlib, Jenkins, Docker, Git, Scikit-learn, Kubernetes, Openstack, Raspberry pi, Openvino

**Relevant Coursework:** Probability, Linear Algebra, Algorithms, Artificial Neural network, Deep learning, Image processing.

## EXPERIENCE

**Software Engineer, Arista Networks** Jun 2022 – Aug 2023

- Led the design and development of an automation framework for validating the SDN solution's features in leaf-spine architecture customer scenarios. Currently, the framework has enhanced the QA process by decreasing the turnaround time by more than 30 percent and the likelihood of errors caused by existing QA methodology.

**Software Development Engineer, Pluribus Networks** July 2021 – June 2022

- Worked on automation tools to configure, test, and integrate RedHat OpenStack 16.2 with Pluribus ML2 driver and NvOS SDN solution, while also automating Kubernetes functionality integration and reducing traffic loss during VRRP Cluster pair router certification upgrade in the customer lab setup.

**Research Intern, IEEE Customer Technology Society** | *Advised by Prof. Kousik S Ramasubramaniam* Oct 2020 – May 2021

- Worked on training a deep learning model that isolates the lung region from the rest of the X-ray and then detects COVID-19 in the lung region. The CEXNET model utilized the CHeXNeT Network's embeddings of disease symptoms to create an ensemble for classification. With X-ray as the input to the model, an application was developed to provide an end-to-end pipeline for processing the image and predicting the probability of disease.

**Product Research Intern, Decodr Technologies** April 2020 – June 2020

- Performed the data pre-processing and analysis using the supervised machine learning algorithms on customer datasets with the detailed case study documentation. Designed and created an introductory course on data science and machine learning.

## PUBLICATION

[1] Dependency-Based Classification With Multimodal Data Using Regular Vine Copulas, 2021 IEEE 18th India Council International Conference (INDICON).

[2] A Comprehensive Survey on Multimodal Data Representation and Information Fusion Algorithms, 2021 International Conference on Intelligent Technologies (CONIT).

## NOTABLE PROJECTS

**Activity Recognition using R-vine copula** | *Advised by Dr. Sanjeev Gurugopinath*

- Developing a state-of-art model[1] for multimodal data representation using copula theory that outperformed the existing state-of-art model for activity recognition using a phone and watches sensor data. R-vine copula theory is employed to perform fusion, which considers both mutual and unique features to each modality of the signal to represent the data better, which enhances the performance significantly for classification and eliminates redundant information.

**Acute Infarct location Identification using CNN** | *Advised by Prof. Kousik Sankar Ramasubramaniam*

- Trained a Keras model to identify the accurate location of existing infarct for a given MRI image to enhance the detection process with a limited number of images.
- Performed the necessary preprocessing on raw MRI images and carried out data augmentation due to the limited number of data. Made use of the Intel OpenVino tool to deploy the model for inference.

## ACHIEVEMENTS/ LEADERSHIP

Won "Phenomenal women- The best all-women team" in SRM Hackathon 4.0, Chennai,India (2018)

Awarded Prof. CNR Rao Merit Scholarship; for the top 5% of the batch, PES University, Bengaluru.