Akash Vegada

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Education

San Jose State University **Aug 2023 – Jul 2025 (Expected)**
Master of Science in Computer Engineering *San Jose, CA*

Nirma University **Jul 2019 – Jun 2023**
Bachelor of Technology in Computer Science and Engineering | ***CGPA: 7.96/10*** *Ahmedabad, Gujarat, India*

Relevant Coursework

- Data Structures and Algorithms
- Object-Oriented Programming
- Design and Analysis of Algorithms
- Database Management Systems
- Web Technologies
- LAMP Technology (PHP)
- Application Development Frameworks (Django)
- Operating Systems

Experience

Research Intern **Jun 2022 – Jul 2022**
Nirma University

- Worked on a research project titled "Active Set Point Management for HVAC Systems".
- Used ML models to predict thermal comfort of occupants to control temperature of HVAC system.
- Employed missing data imputation techniques on ASHRAE dataset to achieve high accuracy of more than 90%.

Android Development-Associate **Feb 2022 – Mar 2022**
The Entrepreneurship Network

- Developed Calculator, To-Do List, and User Dashboard mobile applications for Android using Java.
- Worked with Firebase to manage user data for mobile apps.
- Utilized Android Studio as a development environment in order to visualize the applications in Android.

Publications

Security and Privacy Solutions for Healthcare Informatics
Taylor and Francis LLC.

- Chapter published in the book "Federated Learning for Internet of Medical Things: Concepts, Paradigms, and Solutions".
- Proposed a novel study on decentralized storage for healthcare, implications of quantum-safe blockchain methodologies and their relevance to the internet of medical things.
- Presented the significance of protection and privacy in the healthcare system, possible cyber-attacks, and network security to avoid active attacks in electronic health records (EHRs).

Triplet loss for Chromosome Classification
Journal of Innovative Image Processing | DOI: 10.36548/jiip.2022.1.001

- Presented a similarity learning approach using 'Triplet Loss' for procuring high-dimensional embeddings to boost the automated karyotyping process.
- Successfully created a model that outperformed a Convolutional Neural Network (CNN) tested on a publicly available chromosome classification dataset.

Projects

Blog Website | *MERN Stack*

- Developed a full-functioning blog web app where users can submit, edit and delete posts.
- Added multi-user access and cloud-based image and video management service.

To-Do List Application | *MERN Stack*

- Created a To-Do app with features like user login, completing, and saving tasks to database.
- Incorporated functionality of sending emails to user once task is added successfully, forgot password and more.

Portfolio Website | *JavaScript, CSS, HTML*

- Built portfolio website exhibiting typing-animations and dark-mode toggling.
- Made it fully-responsive for all screen sizes incorporating a hamburger menu.

Skills

Programming Languages: Java, JavaScript, CSS, HTML, Python, C++
Development Stack: MongoDB, ExpressJS, ReactJS, NodeJS
Soft Skills: Communication, Fluent in English, Leadership, Teamwork