

# NARESH KUMAR KAUSHAL

Davis, CA

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## EDUCATION

### University of California, Davis

Master of Science in Computer Science; GPA: 3.93/4.0

- **Coursework:** Software Engineering, Machine Learning, Design and Analysis of Algorithms, Distributed Database Systems

Davis, California

Sep 2022 - Expected June 2024

### Indian Institute of Technology Goa (IIT GOA)

Bachelor of Technology in Computer Science And Engineering; GPA: 3.9/4.0

- **Coursework:** Software Engineering, Artificial Intelligence, Statistical Analysis, Natural Language Processing, C++ programming, Operating Systems, Computer Architecture, Data Structures and Algorithms

Goa, India

Aug 2017 - May 2021

## TECHNICAL SKILLS

**Languages:** Java, JavaScript, Python, C++, HTML5, Cascading Style Sheets (CSS)

**Web Technologies/Databases:** React.js, Node.js, Express.js, Modal View Controller, Spring framework, REST API's, .NET framework, SQL, MongoDB (NoSQL), Next.js, npm, HTTP, JIRA, Jenkins

**Tools and Softwares:** PyTorch, Tensorflow, Linux, Unix, Git (version control), Postman, Maven, Keras, web development, Software Development, Machine learning, Selenium, Swagger, AWS, Kubernetes, Ethereum, Solidity, Docker, JUnit, CUDA

## EXPERIENCE

### University Of California Davis (Link) 🔗 | Software Developer - Part Time

Davis, CA | Nov 2023 – Present

- Co-founded and leading the development of open source **full-stack** web application using **React.js**, **MongoDB** and **Node.js** aimed at enhancing academic and social experience of student community at UC Davis.
- Engineered the frontend UI/UX design for dashboard and roommate finder feature using **React.js** and **CSS**; currently developing an integrated event calendar and a personalized recommendation system.
- Designed secure, efficient **RESTful APIs** with **Node.js** and **Express.js** for backend, ensuring compliance with industry security standards and optimizing data retrieval for minimal response times.

### WOAS Technology Pvt. Ltd. (Wooqer) | Full Stack Developer - Full Time

Bengaluru, India | Jun 2021 – May 2022

- Spearheaded the development of an interactive gallery, using **Java**, **HTML** and **Spring MVC** framework following Agile methodologies, that enabled users to pin feedback on images and send notifications; increasing customer engagement by 45%
- Architected new **RESTful APIs** for microservices using **Java** and optimized **web APIs** to enhance performance, achieving a **25%** reduction in critical response times. Documented all API functionalities comprehensively using **Swagger**
- Managed end-to-end software development, using **Jenkins** for **CI/CD** pipelines, **JIRA** to resolve 100+ bugs, and **JUnit** for unit testing, enhancing product stability and customer service satisfaction.

### Planful (Host Analytics) | Software Developer Engineer - Intern

Hyderabad, India | Jun 2020 – Dec 2020

- Developed a **.NET** console application in **C#** and integrated it with **MySQL** to automate anomaly detection in financial data, enhancing data accuracy and reducing prediction errors in financial planning models by **40%**
- Collaborated with senior developers on code review and debugging using the **NUnit** framework, resolving over 30 issues tracked in **JIRA**. Documented code in **Confluence** to streamline knowledge transfer.

## PROJECTS

### Data Engineering for Political Analysis (Link) 🔗 | API, Selenium, Web Scraping, Python

- Utilized diverse suit of tools including web **APIs**, **selenium** and **web scraping** techniques to extract data from subreddits, demographic databases, and news sources, consolidating into a single **SQLite** database for in-depth political analysis.
- Implemented **Linear Regression** model to explore the relationship between demographic factors and sentiments on various topics and visualized these insights using **JavaScript** and python's **Dash** application.
- Employed **Latent Dirichlet Allocation (LDA)** for thematic analysis of news content across the political spectrum, revealing linguistic patterns and potential biases impacting public opinion.

### Resource-Efficient NFT Marketplace (Link) 🔗 | React.js, Next.js, AWS, Docker, Kubernetes, CSS, Solidity

- Engineered a responsive front-end for an Ethereum blockchain-based NFT marketplace using **Next.js** and **Tailwind CSS**, integrating **MetaMask** for Ethereum wallet to significantly enhance user experience and system performance
- Developed smart contracts using **Solidity** to facilitate secure transactions, leveraging **Docker** for containerization and automated deployment using **Kubernetes** for robust system scalability and reliability
- Managed NFT marketplace on **AWS**, leveraging **EC2** for compute capacity and **Secrets Manager** for secure and compliant operations.

### Silent Speech Interface (SSI) | Python, Machine Learning, Transformers, Signal Processing

- Led a cross-functional team in the development of a **machine learning** model using **CNN**, **attention**, **transformers** and **seq-to-seq** techniques to generate speech in patients with speech disorders achieving **85%** accuracy
- Managed the coordination of clinical trials involving laryngectomy patients, implementing **python** scripts for accurate recording and **synchronization** of sEMG signals, enhancing data integrity and trial efficiency

## LEADERSHIP AND AWARDS

- Secured **CITRIS funding** for the 'Silent Speech' project, earning recognition for leveraging IT research to address societal challenges.
- Received the prestigious **Bronze medal** at IIT-GOA for securing the second rank in the CS department.