

Naresh Kumar Kaushal

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EDUCATION

University of California, Davis (UC Davis)

Master of Science in Computer Science **GPA: 3.92/4.0**

Davis, California

Sept 2022 – May 2024

Indian Institute Of Technology Goa (IIT GOA)

Bachelor of Technology in Computer Science and Engineering **GPA: 3.87/4.0**

Goa, India

Aug 2017 – May 2021

TECHNICAL SKILLS

Programming Languages: Java, Python, C++, JavaScript, C#

Database and Web Development: React.js, Node.js, MongoDB, Express, Modal View Controller framework, HTML5, Cascading Style Sheets (CSS), MySQL, Spring framework, Postman, REST API's, .NET framework, Maven

Others: Linux, Git, Keras, PyTorch, Tensorflow, Signal processing, Machine learning, JIRA, Jenkins, Software Development

WORK EXPERIENCE

Indian Student Association @ UC Davis [Link](#)

Davis, California

Software Developer - part time

Nov 2023 – Present

- Co-founded and leading the development of full-stack web application using **React.js, MongoDB and Node.js** aimed at enhancing academic and social experience of Indian student community at UC Davis.
- Implemented features like housing/roommate finder with **dynamic matching algorithm**; and currently working on event calendar and tailored recommendations.
- Designed secure and efficient **RESTful APIs** on the backend using **Node.js** capable of fetching huge amount of data with minimal response time

WOAS Technology Pvt. Ltd. (Wooqer)

Bangalore, India

Associate Product Engineer

Jun 2021 – Apr 2022

- Spearheaded a Scrum team in the development of an interactive gallery, leveraging **Java** and **Spring MVC framework**, which resulted in a **25%** increase in user engagement and significantly improved the user interface's responsiveness and interactivity.
- Enhanced **API** development by designing and optimizing **RESTful services**, improving system efficiency by **30%** and streamlining data retrieval processes.
- Effectively resolving over **100+** product-related issues tracked in JIRA, leading to a **40%** reduction in customer complaints and contributing to the product's overall stability and reliability.

Planful (Host Analytics)

Telangana, India

Software Developer Engineer - 1 Intern

June 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 to debug code using **JUnit framework**, resolving **30+** pending issues on **JIRA** and documented code for future KT sessions

PROJECTS

Silent Speech Interface (SSI) for patients with speech disorder [Link](#)

Apr 2023 - Present

- Leading ongoing research at Center For Mind And Brain in collaboration with Accenture labs as Graduate Student Researcher to develop a non-invasive multimodal silent speech interface (SSI) for patients with speech disorders
- Engineered an advanced supervised learning model that synthesizes speech by integrating sEMG and visual cues, employing a novel combination of **CNN-RNN** and **attention-based Seq-to-Seq** architectures, achieving a **35% WER**

Enhancing driver voice assistant software to help reduce road accidents (Omdena AI challenge) [Link](#)

Nov 2021 - Jan 2022

- Led pre-processing team to develop a U-Net or Convolutional Autoencoder model to denoise driver's speech for voice assistant software
- Enhanced speech intelligibility by integrating a language model, achieving a **0.33%** word error rate, and feeding the improved output to a RASA-based chatbot

Classification of High Dimensional Low Sample Size data (Btech Capstone Project) [Link](#)

Jan 2021 - May 2021

- Developed a supervised deep learning model for classifying High Dimension Low Sample Size (HDLSS) cancer data leveraging mRNA-Seq gene expression profiles.
- Overcame the prevalent issues of high variance and overfitting in HDLSS data through intricate data preprocessing and feature engineering using boosting and PCA, achieving an impressive **90%** accuracy.

AWARDS AND LEADERSHIP

- Secured CITRIS funding for the pioneering 'Silent Speech' project at UC Davis, earning recognition for leveraging innovative IT research to address societal challenges.
- Received the prestigious Bronze medal at IIT-GOA for securing the second rank in the CS department.
- Led tutorial sessions and labs as a Teaching Assistant for the 'Introduction to Programming' course, enhancing student understanding and engagement. My approach resulted in improved student performance and positive course evaluations.