

Naresh Kumar Kaushal

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EDUCATION

University of California, Davis (UC Davis)

Master of Science in Computer Science **GPA: 3.9/4.0**

Davis, California

Sept 2022 – Apr 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, jQuery, 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

University Of California Davis [Link](#)

Davis, California

Graduate Student Researcher

April 2023 – Present

- Leading ongoing research at Center For Mind And Brain as Machine Learning Researcher to develop a non-invasive multimodal silent speech interface (SSI) for patients with Dysarthria
- Implemented a **supervised** model to generate **Hu-BERT** speech units by decoding sEMG signals using **CNN-RNN** and **attention** based **transformer** model achieving a WER of **35%**
- Working to incorporate multimodal strategy combining sEMG signals, audio, and video (lipreading) to reduce the phoneme confusions and improve WER

WOAS Technology Pvt. Ltd. (Wooqer)

Bangalore, India

Associate Product Engineer

Jun 2021 – Apr 2022

- Spearheaded a **web-development** team to design an interactive gallery using **Spring MVC framework** with a new feature of point annotation and commenting, improving customer engagement by **45%**
- Designed new **APIs** and optimized existing ones to revamp Wooqer mobile app (**Android and iOS**) resulting in **25%** reduction in critical response times
- Resolved multiple product-related errors tracked in **JIRA** through close collaboration with the Customer Success and Quality Assurance teams

Planful (Host Analytics)

Telangana, India

Software Developer Engineer - 1 Intern

June 2020 – Dec 2020

- Designed a **.NET console app** in **C#** and **MySQL** to identify anomalies in financial data and assign quality scores, reducing prediction errors in financial planning models by **40%**
- Collaborated with senior developers to debug code using **NUnit framework**, resolving **30+** pending issues on **JIRA** and documented code for future KT sessions

PROJECTS

Web platform for Indian Davis Community (IDC) [Link](#)

Nov 2023 - Present

- Leading a team of 4 in creating a **MERN-stack** web solution tailored for the Indian student community at UC Davis, focusing on roommate search, event management, and housing support.
- Architecting the platform with **React.js** and **CSS (front-end)**, and **Node.js, MongoDB, Express (back-end)**, ensuring a seamless user experience and robust data management.

Omdena real world 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.

Feature Selection using deep learning (Btech Capstone Project) [Link](#)

Jan 2021 - May 2021

- Developed a **supervised** model for classifying High Dimension Low Sample Size (HDLSS) cancer data using mRNA-Seq gene expression values of patients with different molecular subtypes.
- Applied **boosting**, **greedy feature selection**, **PCA**, and **Deep Neural Networks (DNN)** to overcome the challenges of high variance and overfitting in HDLSS data, achieving an accuracy of approximately **90%**.

AWARDS AND LEADERSHIP

- Awarded institute Bronze medal for second rank in CS department of IIT-GOA 2017 batch
- Served as a teaching assistant for Introduction to programming lab and led discussion sessions at UC Davis.