

# Naresh Kumar Kaushal

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## EDUCATION

University of California, Davis (UC Davis)

Davis, California

Master of Science in Computer Science GPA: 3.9/4.0

Sept 2022 – Apr 2024

Indian Institute Of Technology Goa (IIT GOA)

Goa, India

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

Aug 2017 – May 2021

## TECHNICAL SKILLS

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

**Database and Web Development:** MVC, HTML5, Cascading Style Sheets (CSS), React.js, MySQL, jQuery, Spring framework, Postman, REST API's, .NET framework, Maven

**Others:** CUDA, 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 of 5 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

Consenz [Link](#)

Work From Home

Machine Learning Engineer (Freelancer)

Oct 2021 – Jan 2022

- Led a pre-processing team at [Consez](#) to develop driver's **voice assistant software** (Enzo), focused on designing a speech denoising **ML model** using **Convolution Autoencoders**
- Integrated a language model to enhance intelligibility, resulting in a word error rate reduction to **33%**, and feeding the improved output to a **RASA**-based chatbot.

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

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%**.

Personal Portfolio [Link](#)

Dec 2022 - Present

- Developed a personal portfolio **web application** with a Netflix-inspired UI/UX, utilizing **React.js** and **CSS** demonstrating skills in modern web technologies and user-centric design.

## AWARDS AND LEADERSHIP

- Awarded **institute Bronze medal** for second rank in CS department of IIT-GOA 2017 batch
- Served as a Teaching Assistant for the 'Introduction to Programming' course at UC Davis, leading interactive discussion and lab sessions