

Krutika Rajesh Bhalla

(951)578-3911 • bhallakrutika911@gmail.com • krutika-bhalla.github.io/ • linkedin.com/in/krutika-bhalla/

EDUCATION

Master of Science, Computer Science

Sep 2022 - Mar 2024

University of California, Riverside

GPA: 3.83/4.0

- Relevant Courses: Advanced Operating System, Design and Analysis of Algorithms, Artificial Intelligence, Big Data Management, Natural Language Processing, Parallel Algorithms

Bachelor of Technology, Information Technology

Jul 2018 - May 2022

KJ Somaiya Institute of Engineering & Information Technology, Mumbai, India

GPA: 9.16/10.0

- Relevant Courses: Software Development Life Cycle, Cloud Computing, Object-Oriented Programming, Computer Architecture

PROFESSIONAL EXPERIENCE

Full-Stack Developer | Tapistro | Santa Clara, USA

Jun 24 - Dec 24

- Developed REST APIs in **Node JS** for core features like Journey module, enabling businesses to record essential data such as Company LinkedIn, HQ address, employee details/emails by enriching user's signal or interactions with company website
- Worked with **UX/UI** teams to implement responsive components using **React**, improving the overall user experience
- Developed the connection creation flow for **OAuth-based** integrations, including Google, HubSpot, & Microsoft, ensuring secure authentication with our platform
- Integrated Outplay's third-party API, enabling users to fetch and view their sequences seamlessly within the Tapistro platform
- Conducted comprehensive unit and integration tests **Jest**, ensuring robust and reliable functionality

Backend Engineer Intern | Ethos | Los Angeles, USA

Feb 24 - May 24

- Built a Medical Records Module using **Django**, supporting access, update, and management (**CRUD**) of patient records and tracking treatment progression
- Leveraged the **MVT Architecture** to implement a new Breathalyzer feature that allowed doctors to record and monitor the blood-alcohol level in patients and generate comprehensive reports showing patient statistics
- Enabled Notifications using **Firebase Cloud Messaging** to notify patients to record their breathalyzer readings, significantly boosting patient engagement with the treatment protocols

Software Engineer Intern | TTK Healthcare Ltd | Mumbai, India

Feb 2022 - Aug 2022

- Drove a Sales Forecasting Model by integrating **Random Forest Regression** (for feature selection) & **LSTM** (for time-series forecasting) achieving a **94%** accuracy. Used **Amazon Sagemaker** for efficient model training and deployment
- Collaborated with cross-functional teams to enhance **ETL pipeline** for sales data. Integrated data from various sources such as internal CRM sales records and inventory level data onto a unified database
- Implemented **MySQL** and **Python Scripting** for cleaning, preprocessing dataset, and eliminating redundant columns. This improved data retrieval speeds by **27%**, minimized data inconsistencies, and bolstered data integrity
- Implemented a dashboard with **Django**, **React JS** and used **Plotly** charts for data visualization

Full Stack Developer Intern | Rudraksha Welfare Foundation | Mumbai, India

Jan 2021 - Aug 2021

- Designed a **CRM** system using **Node & React JS**, for **JSON**-based data exchange between app and server
- Integrated a **project management module** with scheduling interfaces, improving tracking efficiency by **30%** and boosting donor contributions by **15%** through enhanced transparency

PUBLICATION

Multi-Speaker Recognition and User-Specific Answering System | [Publication](#)

- Drove the design for a voice authentication framework using **MFCC**-based **Voice Activity Detection** (VAD), reliably identifying users by extracting pivotal audio features including **tone**, and **pitch**, even in noise-pervaded environments
- Integrated **Wav2Vec 2.0 Transformer** by **Hugging Face** & **SpaCy-3** for audio-to-text conversion with **95%** accuracy, utilizing **LLMs** to enhance linguistic pattern recognition and improve context-aware response delivery

TECHNICAL SKILLS

Languages : Python, Scala, TypeScript, C++, Java, MySQL, MongoDB, PostgreSQL, HTML5/CSS, Ajax, JSON

Frameworks : Django, Node JS, FastAPI, React JS, Docker, Kubernetes, Hadoop, Jenkins, Jest, JUnit

Tools & Libraries : GIT, Linux, Jira, PyTest, AWS, Sci-Kit Learn, Plotly, PyTorch, Sagemaker

AWARDS & CERTIFICATIONS

- **2nd Place**, UCR Programming Challenge (competed against **200+** scholars including PhDs and Master's candidates)
- **1st Place**, PICT's Impetus & Concepts - Recognized for "Multi Speaker Recognition and User-Specific Answering System" in the Speech/Audio Processing domain.
- **AWS Certification**: Going Cloud Native & Building Serverless Applications
- **Graduate Assistant** CS 153 Design of Operating System & CS 180 Introduction to Software Engineering. Conducted Problem-Solving Sessions and Office Hours to assist students. Facilitated Lab sessions and graded assignments