

# KUNAL HEMANT PASAD

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## EDUCATION

Rutgers, The State University of New Jersey, New Brunswick, United States

Expected: May 2027

Candidate for Master of Science in Computer Science

Bharatiya Vidya Bhavan's Sardar Patel Institute of Technology, Mumbai, India

May 2025

Secured *Distinction* in Bachelor of Technology in Computer Engineering

(CGPA 8.62/10)

## TECHNICAL SKILLS

- Programming language: C++, SQL, Laravel, Dart, Codeigniter, Python, JavaScript
- Technologies: Flutter, React, Node.js, Firebase

## RESEARCH PUBLICATIONS

**Let's Play Across Cultures: A Large Multilingual, Multicultural Benchmark for Assessing Language Models' Understanding of Sports** **November 2025**

- Contributed to building a large-scale QA dataset (33,000 multiple choice questions) on traditional sports across text and image modalities
- Benchmarked LLMs, SLMs and multimodal models using zero-shot, few-shot and CoT prompting
- Analyzed model performance on culturally and multilingual sensitive tasks
- Co-authored the resulting research paper, published at the Main Conference of EMNLP 2025

**IMPULSE - Important Message Prioritization**

**May 2024**

- Developed IMPULSE, a system for WhatsApp message prioritization using Top2Vec and XGBoost, achieving 96.55% accuracy
- Aimed to develop a relevancy scoring engine using Top2Vec and XGBoost, applying machine learning for intelligent classification and prioritization of WhatsApp messages
- Pre-processed data with nltk by tokenizing, removing non-alphanumeric characters, and excluding stopwords, utilizing a combined dataset of WhatsApp chats and external sources
- Authored a paper for IMPULSE, accepted for publishing at ICACIS 2024, Springer Publication

## PROFESSIONAL EXPERIENCE

**Mukesoft IT Consultants, Mumbai, India (Remote)**

**July 2023 - February 2024**

*Intern – Full stack web developer*

Mukesoft IT Consultants is a software development and consulting firm offering end-to-end business solutions.

- Improved Laravel-based employee tracking system by adding work-hour logging and task update features, enhancing overall project visibility
- Collaborated with a client to debug and optimize a CodeIgniter website, implementing fixes and final updates for a successful launch

## ACADEMIC PROJECTS

**Deepfake Guard - Audio Deepfake Detection System**

**August 2024 - March 2025**

- Developed an audio deepfake detection system using 2-second speech samples from the Fake-or-Real dataset, combining spectral feature extraction with deep learning to identify synthetic speech
- Applied explainable AI methods (Grad-CAM, LIME, SHAP) to provide transparency into classification decisions, enabling trustworthy detection for real-world and forensic use cases
- Co-authored a paper on the same

**DeliciousBytes | Flutter, Laravel, MySQL**

**February 2024 - June 2024**

- Set up an Android application using Flutter for seamless food delivery, including shopping cart, order placement, and payment processing
- Engineered a RESTful API with complete CRUD operations and a Laravel backend with an admin panel for efficient management

## TEACHING EXPERIENCE

- Part-Time Lecturer (CS206) & Grader (CS535), Rutgers University
- Teaching Assistant, Sardar Patel Institute of Technology

**September 2025 - December 2025**

**August 2024 - December 2024**