Jinendra Malekar

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EDUCATION

University of South Carolina College of Engineering and Computing   **Columbia, SC**
Master of Science: Computer Science   **Expected May 2025**
Major GPA: 3.75/4.0
Relevant Coursework: Analysis of Algorithmic, Edge and Neuromorphic Computing, Advanced Topics in Neuro-symbolic AI, Compiler Construction, Network Systems Security

TECHNICAL SKILLS

Languages/Frameworks: JavaScript, C++, Python, HTML, CSS, React.js, Next.js, React Native, Node.js, Django,Flask, Express.js
Others: MongoDB, AWS, SQL, Git, Nginx, Firebase, Postman, Bootstrap, RESTful API, FAST API

PROFESSIONAL EXPERIENCE

Artificial Intelligence Institute at University of South Carolina   **Columbia, SC**
Graduate Research Assistant (Research Advisor: Dr. Amit Sheth)   *August 2023 - Present*
- Designed and implemented a comprehensive full-stack application to create and merge diverse knowledge graphs, facilitating the integration of various knowledge bases on the internet and supporting knowledge discovery
- Created a web-based real-time application for monitoring and annotating high-risk suicidality-related posts on Reddit, achieving a reduction in evaluation time and an accuracy rate exceeding **85%** for annotating posts
- Invested over **450+** hours in researching Language Models and mental health, leading to the development and execution of functional research projects resulted in the submission of **2** papers currently under review at prestigious AI conferences

Research Specialist   *August 2022 – August 2022*
- Developed a mobile app for **Prisma Health**, enhancing monitoring for **10** type-1 diabetic patients with an intuitive interface, achieving an increase in patient engagement for daily carbohydrate tracking of patients for insulin management
- Collaborated on a customized dashboard with **BMW** Greenville/Fraunhofer material planners, improving data accessibility and efficiency, and migrated the backend database from MongoDB to Redis achieving a **30%** performance boost
- Focused on disaster management, built an interactive dashboard that improved shelter and medical assistance access during calamities utilizing real-time Twitter data
- Devoted **900+** hours researching Language Models integration with mental health, working on impactful research projects that resulted in the publication of two papers in prestigious AI conferences

Software Developer   **Delhi, India**
Krya Innovations Pvt. Ltd   *July 2021 – June 2022*
- Oversaw consumer-facing components of the 'rippl' web app on the Next.js framework, delivering new features and enhancing capabilities, resulting increase in user engagement
- Collaborated with the design team to create a comprehensive front-end website using React.js, contributing to a **15%** expansion in the product's reach and usability, fostering increased user engagement and satisfaction

Software Developer Intern   **Banglore, India**
Mimyk, Indian Institute of Science, Bangalore   *January 2021 – June 2022*
- Contributed to the development of the Endoarchive project, a Virtual Reality (VR) and haptics-enabled simulation platform for endoscopy procedures

PROJECTS

BMW Dashboard for Greenville/Fraunhofer | [Demo](#)   AWS | React.js | MongoDB | Fast API
- Worked with BMW Greenville/Fraunhofer material planners to create a tailored dashboard
- Led the development of the dashboard's React.js front end and coded a robust Python-based backend for enhanced performance and efficiency

Suicidality Diagnosis of Online Reddit Data | [Demo](#)   Pytorch | Flask | Reactjs
- Built a web application using advanced natural language processing having an accuracy of **85%** to track suicidal posts on Reddit
- Improved algorithm efficiency, improving the prediction of suicidality-related concepts in text, and reduced system latency to an impressive 0.8 seconds per sentence for real-time monitoring

Prisma Health Mdiabates App | [Demo](#)   React native | MongoDb | Node.js | Flask
- Developed a thorough mobile application for **Prisma Health** to assist in monitoring individuals with type-1 diabetes
- Designed an intuitive interface enabling patients to effectively manage insulin levels by tracking daily carbohydrate intake, highlighting expertise in healthcare data management and patient support solutions

Disaster Record | [Demo](#)   Python | React | Flask | Tensorflow
- Emphasized disaster management by creating an interactive dashboard for crucial information during natural calamities
- Created a tool for shelter location and medical aid during disasters, for improvement in response efficiency

PUBLICATIONS

- Kaushik Roy, Yuxin Zi, Manas Gaur, Jinendra Malekar, Qi Zhang, Vignesh Narayanan, Amit Sheth, "Process Knowledge-infused Learning for Clinician-friendly Explanations" June 2023. AAAI Second Symposium on Human Partnership with Medical Artificial Intelligence **[paper]**
- K. Roy, V. Khandelwal, R. Goswami, N. Dolbir, J. Malekar, and A. Sheth, "Demo Alleviate: Demonstrating Artificial Intelligence Enabled Virtual Assistance for Telehealth: The Mental Health Case" Oct 2022, Accessed on 12/09/2022. [Online] Proceedings of the AAAI Conference on Artificial Intelligence **[paper] [demo]**