SANCHAY NARENDRA GAWANDE

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SKILLS

- **Programming Languages:** Python, R, Java, JavaScript, PHP, C, C++
- **Web Development:** Web Application Development, APIs, RESTful APIs, LLMs
- **Frameworks & Libraries:** MERN Stack (MongoDB, Express.js, React, Node.js), Bootstrap, Angular
- **Databases:** MySQL, Oracle, PostgreSQL
- **Cloud Services:** AWS, EC2, Azure, IBM Cloud
- **Tools & Technologies:** Postman, Docker, Matplotlib, Git, Jira

PROFESSIONAL EXPERIENCE

Headstarter AI   **May 2024 - Present**
Software Engineering Fellow | *Vercel, Next.js (Full-Stack Development and AI Integration)*
- *AI-Driven Projects:* Successfully developed and deployed five **AI-infused projects**, each contributing significant value:
    - Personal Website: Designed a personal portfolio site, achieving top 10 SEO ranking and driving a 20% increase in site traffic through AI-enhanced content
    - Pantry Tracker: Built a pantry management application using **Next.js** and **Firebase**, integrating **GPT Vision API** with 85% accuracy in image recognition, leading to a 30% boost in user engagement
    - AI Customer Support: Led the development of an AI-powered chatbot with 90% response accuracy, efficiently handling over 1,000 user queries within the first month, deployed on **AWS EC2 servers**
    - AI Flashcards & Stripe: Created a **SaaS** flashcard app, implementing **Stripe** for payment processing. Achieved a 50% user retention rate, converting 10% of users to paid customers within two weeks of launch
    - AI Rate My Professor: Developed a RAG-powered AI assistant using Next.js, **Pinecone**, and OpenAI API to enhance the Rate My Professor experience. Integrated a **vector database** for efficient information retrieval, enabling accurate, context-aware responses. Built a responsive chat interface with real-time streaming, achieving 90% response accuracy. Successfully deployed the application, handling over 100+ queries in the first month

University of Massachusetts, Boston   **Jan 2024 - May 2024**
Software Engineer | Flask, Firebase, Llama Model
- Engineered a web application featuring a personalized chatbot using the **Llama model**, aiding newly diagnosed diabetes patients; now actively assessed by over 50 healthcare professionals at UMass Boston, enhancing patient care
- Implemented **MongoDB** to manage robust data across 10,000+ patient interactions, **Firebase** for secure authentication handling over 500+ daily logins, and used HTML and CSS to create a responsive and user-centric interface
- Introduced a provider portal now used by 80% of the care providers at UMass, resulting in a 50% improvement in patient follow-up compliance.

Prof. Ram Meghe Institute of Technology and Research   **Jan 2021 - Aug 2021**
Research Assistant | Natural Language Processing (NLP), Deep Learning (DL), model training and evaluation
- Developed and implemented advanced AI and ML models, utilizing **CNNs**, **RNNs**, and **LSTMs** for applications such as image caption generation, object recognition, and scene recognition, incorporating methodologies like feature extraction, sequence prediction, attention mechanisms
- Designed a multi-caption generator, improving caption diversity by 15% and relevance by 30%.Analyzed 50+ models and conducted experiments, resulting in a 40% increase in performance metrics

PROJECTS

Social Media App Using MERN Stack   **Mar 2024 - July 2024**
- Developed a comprehensive social media application using the **MERN** stack, featuring user authentication, post creation, and real-time chat functionalities
- Utilized **MongoDB, Express.js, Node.js, and React** to manage user data, create **RESTful APIs**, and build responsive user interfaces
- Integrated **Docker** for containerization and deployed the application on **AWS** for scalability and performance optimization

Winner Prediction in CSGO Using Machine Learning   **Nov 2023 - Dec 2023**
- Crafted sophisticated algorithms using **Neural Networks** and **Linear Regression**, leveraging extensive data from 500+ team metrics and player statistics, successfully predicting CSGO game winners with a 70% accuracy rate
- Applied advanced data preprocessing techniques that improved model accuracy by 15% and reliability. Harnessed **Python, TensorFlow, and Scikit-learn** in a comparative analysis showing a 20% better performance over baseline models
- Achieved the highest score of 100/100 for this project, earning special commendation from the professor for outstanding innovation

EDUCATION

Master of Science - Computer Science   **Graduated May 2024**
University of Massachusetts Boston
Coursework: Analysis of algorithms, Applied machine learning, Database Management systems, OOPS, AI, Computer Vision

Bachelor's in Computer Science and Engineering   **Graduated May 2022**
Sant Gadgebaba Amravati University, Maharashtra
Coursework: Design and Analysis of Algorithms, Web Technology, Engineering Mathematics, Data Structures