VISHNU RESHAMWALA

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EDUCATION

California State University Channel Islands

Master of Science in Computer Science (GPA: 3.9/4.0)

Bhagwan Mahavir College of Engineering and Technology

Bachelor of Engineering in Computer Engineering (CGPA: 7.85/10.00)

Camarillo, CA

Aug. 2023 – Dec 2025

Surat, India

Jul. 2018 - May 2022

TECHNICAL SKILLS

Programming Languages: C/C++, Java, JavaScript, TypeScript, Python, ROS **Technologies**: Git, Docker, CI/CD, AWS, GCP, Linux/Unix, HTML, CSS, SQL

Frameworks & Libraries: React, Node.js, Next.js, Express, NestJS, PostgreSQL, MongoDB, RESTful APIs, SerpApi AI/ML: TensorFlow, Keras, PyTorch, NumPy, Pandas, Scikit-Learn, CNN, LangChain, FAISS, LLaMa, HuggingFace, Amazon

SageMaker, OpenAl API, Gemini API, Ollama

PROJECTS

Bink: Al Conversational Shopping Assistant | React, Node.js, TypeScript, Gemini API, SerpApi

Demo (YouTube)

- Developed "Bink," an Al-powered conversational shopping assistant enabling users to find products via natural language and image-based queries
- Integrated Google Gemini for multimodal (text and image) query understanding, Al-driven search keyword generation, and intelligent product recommendations
- Utilized SerpApi for real-time product searching from Google Shopping, with specialized modes for general and "thrift" (second-hand) items

TinderJob: Swipe-Based Job Matching | React.js, NestJS, MongoDB, JWT Authentication, RESTful APIs Demo (YouTube)

- Developed an innovative job recruitment platform that revolutionizes hiring with a swipe-based interface for seamless recruiter-job seeker matching
- · Features secure authentication, instant messaging, and automated interview scheduling

Retrieval-Augmented Generation (RAG) Al Agent | LangChain, FAISS, LLaMa, HuggingFace Transformers

- · Architected an AI agent using Retrieval-Augmented Generation (RAG) to provide context-aware responses
- Implemented document loading, vector storage, and retrieval using LangChain and FAISS. Integrated LLaMa language model for generating context-aware responses
- Created an interactive command-line interface for real-time user queries, enhancing information retrieval from a local document corpus

EXPERIENCE

Master's Thesis - Intelligent Human-Robot Interaction System

Jan. 2025 - Present

California State University Channel Islands (Advisor: Dr. Bahareh Abbasi)

Camarillo, CA

- Pioneering multimodal human-robot interaction research by developing an intelligent manipulation system that seamlessly translates natural language commands into precise robotic actions using the Sawyer collaborative robot platform
- Engineered a novel computer vision pipeline integrating OpenAl's GPT-40 vision model for real-time object detection, shape classification, and spatial reasoning
- Architected a scalable, containerized robotics framework using Docker and ROS for reproducible deployment and modular development
- Leading independent research with findings targeted for peer-reviewed conferences in collaborative robotics

IT Help Desk Student Assistant

Aug. 2024 – Present

California State University Channel Islands

Camarillo, CA

Mar. 2024

Dec. 2024

- Provide comprehensive technical support to university community, resolving network, application, and A/V issues
- Manage incidents through TeamDynamix and collaborate with team to enhance operational efficiency

CERTIFICATIONS & ACHIEVEMENTS

Machine Learning by Stanford University (Coursera): Grade 100%

AWS Academy Graduate: Cloud Architecting

Active Member: Artificial Intelligence Club

AWS Academy Graduate: MLU Machine Learning through Application

Winner: CSUCI Mission & AWS Hackathon Event

Application Dec. 2023 Sept. 2023

3ept. 2023

Sept. 2023 - Present