K.P.MANIKANTA

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OBJECTIVE

Seeking a Master's degree in Computer Science will help me to increase my research capacity in emerging fields including artificial intelligence, data science, and software engineering and so deepen my technical expertise. Having a solid background in full stack Java development, I hope to be a creative technologist ready to use clever, scalable solutions to solve challenging real-world problems.

EDUCATION

B.Tech [Computer Science and Engineering]

- **College** - Prasad V Potluri Siddhartha Institute of Technology [Autonomous] **2021 - 2025**
- **University** - Jawaharlal Nehru Technological University, Kakinada
- **CGPA** - 7.16

Intermediate [MPC]

- **College** - Sri Bhavishya Educational Academy **2019 - 2021**
- **Board** - Board of Intermediate Education Andhra Pradesh [BIEAP]
- **Percentage** - 89.2%

High School [SSC]

- **College** - Viswabharathi English Medium High School **2018 - 2019**
- **Board** - Board of Secondary Education Andhra Pradesh [BSEAP]
- **GPA** - 9.3

TECHNICAL SKILLS

- **Programming Languages:** Java, JavaScript, and Python.
- **Web Technologies:** HTML, CSS, BOOTSTRAP, DOM, JQUERY, Node.js, React.js.
- **Databases:** MySQL, Oracle.
- **Frameworks:** Spring Boot, Hibernate.
- **Version Control:** Git, GitHub.

CERTIFICATIONS

- **Infosys Spring Board:** C++, PYTHON, BLOCKCHAIN.
- **Spoken Tutorial:** Arduino, PHP and MySQL, Android App Using Kotlin, RDBMS PostgreSQL.
- **HackerRank:** Java (Basic), Python (Basic).
- **Great Learning Academy:** UIUX, HTML, CSS, Data Structures in C, Building Games using JavaScript.
- **AWS Academy Graduation by Credly:** AWS Academy Cloud Foundations, AWS Academy Machine Learning.
- **CISCO by Credly:** Introduction to Cyber-Security**,** Cyber-Security Essentials.
- **AICTE Virtual Internship:** Google Android Developer, Intelligent Automation, AIML, Zscalar Zero Trust Cloud Security.

EXTRA CO-CURRICULAR

- **Participated in Unstop Events:** TVS [e.p.i.c 5], Coca-Cola, Flipkart.
- **Workshop:** Attended an IOT workshop conducted by the Department of CSE in PVPSIT in UI-PATH's Robotics Process Automation workshop**.**
- **Participated in College Events:** National Service Scheme, Member of Innovation Club, Yoga.
- Photoshop and Photo-mixing.
- Secured Orange Belt in Karate.

CODING PROFILES

• HackerRank • Code Chef • LeetCode

PROJECTS

Web Application Development - HEALING NEXUS

- The "Healing Nexus" project is a web-based application developed by Computer Science students to provide a user-friendly platform for finding nearby doctors based on user-inputted symptoms. Designed with HTML, CSS, and JavaScript, the application aims to simplify healthcare access by offering symptom-based doctor recommendations, detailed doctor profiles, and an intuitive search interface. It includes features like user authentication, reviews, and responsive design for an enhanced user experience. The system prioritizes data privacy and plans to evolve with feedback and future integrations like telemedicine. Overall, it bridges the gap between patients and healthcare providers, especially benefiting those unfamiliar with where to seek appropriate medical care.

IOT - HAND HYGIENE SYSTEM

- The "Hand Hygiene System", also known as "Medical Brahmastra", is an innovative solution designed to promote hygiene and prevent the spread of infections, especially in hospitals and public places. The system uses an automatic hand sanitizer dispenser that operates via an infrared (IR) sensor and a 5V relay module to detect hand movement and activate a DC pump, ensuring touchless operation. Built using components like a proximity sensor, USB cable, water tube, switch, and plastic or wooden casing, the device dispenses sanitizer efficiently when hands are placed near the sensor. The project emphasizes simplicity, low cost, and effectiveness in maintaining hygiene, making it particularly valuable during health crises like pandemics.

MERN STACK - HOPE HARBOR

- The project "Hope Harbor" is a full-stack web application developed by a team of students from Prasad V. Potluri Siddhartha Institute of Technology as part of their Bachelor of Technology degree in Computer Science and Engineering. The platform aims to connect donors with orphanages to streamline the donation process, ensuring that orphanages receive necessary support such as food, clothing, and health checkups. Built using MongoDB for the database and React for the frontend, the application features separate login systems for users and admins. Users can donate items or money, while admins manage orphanage details and requirements. The project also includes a crowdfunding feature to address specific orphanage needs. Key Functionalities include user authentication, contact form submissions, and admin controls for managing users, contacts, and services. The application is designed to be scalable, secure, and user-friendly, leveraging modern technologies like Express.js for the backend and React Router for navigation. The project demonstrates the team's proficiency in full-stack development and their commitment to creating a meaningful social impact.

MACHINE LEARNING - FACIAL EXPRESSION AND HAND RECOGNITION IN COMPUTER VISION

- As an in-depth exploration of the integration of Artificial Intelligence (AI) and Machine Learning (ML) in the field of Computer Vision, through both theoretical concepts and practical implementations. It begins with a literature survey covering essential algorithms like Support Vector Machines (SVM), Convolutional Neural Networks (CNN), Recurrent Neural Networks (RNN), Reinforcement Learning (RL), and YOLO for object detection, explaining their working principles, mathematical foundations, and real-world applications. The practical component involves two hands-on projects: a Hand Gesture Recognition System, utilizing MediaPipe's palm detection and landmark models for accurate gesture identification, and a Facial Expression Recognition System, using a CNN model to classify emotions from real-time video streams. The report highlights how these technologies enable interactive and responsive applications, offering potential solutions in areas like healthcare, security, and user interface design, and underscores the value of combining AI and ML for real-time recognition tasks.

SALESFORCE - GARAGE MANAGEMENT SYSTEM

- The Garage Management System is a comprehensive Salesforce-based software solution designed to optimize automotive repair facility operations. By integrating custom objects like Customer Details, Appointments, Service Records, and Billing, the system provides a robust platform for managing customer interactions, service workflows, and business processes. The project features advanced configurations including validation rules, duplicate management, and automated workflows, with Apex triggers for dynamic service pricing and flows for payment notifications. Complemented by custom reporting and dashboards, the system aims to enhance operational efficiency, streamline service management, and improve overall customer satisfaction in automotive repair businesses.

MACHINE LEARNING - AIR CANVAS

- The project develops a computer vision-based air canvas system that enables touchless digital drawing through real-time hand gesture recognition. By leveraging advanced gesture detection algorithms, the system tracks hand movements to translate mid-air gestures into digital drawings. The solution aims to create an intuitive, device-free interface for digital content creation, addressing interaction challenges across design, education, and entertainment domains. Key technologies include OpenCV, hand tracking techniques, and machine learning models like ResNet18, with the system demonstrating high accuracy under varying environmental conditions.

NICE COMPUTERS WEBSITE - HTML, CSS, JAVASCRIPT

- Designed and developed a fully functional educational web portal using HTML, CSS, and JavaScript to simulate an online learning platform for the "Nice Computers" institute. The project features user authentication via a login page, dynamic course enrollment functionality, structured navigation, and responsive UI elements. Implemented JavaScript-based course selection with alert-based feedback and incorporated multiple pages, including a home page, course detail pages, and a contact form. Focused on clean design, user experience, and modular coding practices to enhance maintainability and scalability.

INTERNSHIPS
DRDO

- Worked on Facial Expression and Hand Gesture Recognition using Computer Vision as an intern in DYSL-AT (DRDO-RCI), Hyderabad. Also did a literature survey on AIML in Computer Vision (CV).

AICTE

- Carried out Salesforce Developer Internship by working on Salesforce Fundamentals, Organizational Setup, Relationship & Process Automation Types of Flows & Security Apex, Testing & Debugging VS Code Setup& CLI Setup Lightning Web Components (LWC) & API, and completed various Super Badges such as Apex Specialist, Process Automation Specialist, and Developer Super Set. Internship offered by Smart Internz, Sales Force, and Smart Bridge.

- Did an Intelligent Automation internship offered by N.E.A.T, EduSkills, SS&C, and Blue Prism.

- Did a Google Android Developer internship offered by EduSkills, N.E.A.T, and Google for Developers, Developer Ecosystem Lead MENA & India.

- Did an AI-ML internship offered by EduSkills, N.E.A.T, and AWS academy.

ACHIEVEMENTS

- Completed a prestigious AI-ML internship offered by EduSkills, N.E.A.T., and AWS Academy, focusing on real-world cloud-based machine learning applications and deployment practices.

- Recognized for contributing to national-level research during an internship at DYSL-AT (DRDO-RCI), Hyderabad, where I worked on facial expression and hand gesture recognition systems using AI/ML in Computer Vision.

- Spearheaded the development of impactful full-stack web applications like Healing Nexus and Hope Harbor, solving healthcare accessibility and orphanage support challenges using React.js, Node.js, and Mongo DB.

- Earned multiple Super Badges during a Salesforce Developer Internship through AICTE, demonstrating a strong command over Apex programming, Process Automation, and LWC.

- Showcased innovation in Human Computer Interaction by building Air Canvas, a gesture-based drawing app using Open CV and ResNet18 for real-time tracking and interaction.

- Completed a Machine Learning-based Air Canvas project using Open CV and ResNet18 for real-time hand gesture recognition; currently working towards publishing a research paper based on this work in a reputed conference.

- Designed the Nice Computers Website, a multi-page educational portal using HTML, CSS, and JavaScript, featuring authentication, course enrollment, and responsive UI.

- Actively participated in national-level events and technical workshops, including Unstop challenges (TVS e.p.i.c, Coca-Cola, Flipkart), IoT workshops, and RPA sessions conducted by UI-Path.

- Participated in a 5-day Hands-on Training on IoT & its Applications (IoT&A-2022) to gain practical knowledge in embedded systems and real-time IoT tech.

- Completed a project on Hand Hygiene monitoring using IoT concepts under the Department of CSE initiative.

- Initiated a major project as part of a Java Full Stack Development course, focusing on end-to-end web application development using Spring Boot, Web Technologies, and MySQL.