PAVAN KUMAR VIPPARLA

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EDUCATION

Stevens Institute of Technology, Hoboken, NJ — **December 2024**
Master of Science in Computer Science — **GPA**: 3.7/4.0
MLRITM College of Engineering, Hyderabad, India — **May 2023**
Bachelor of Technology, Computer Science Engineering — **GPA:** 7.50/10

SKILLS

- **Programming Languages & Tools:** Java, C++, Python, JavaScript, HTML, CSS, SQL, Git, Visual Studio, Eclipse and Microsoft Suite.
- **Technical Skills:** Web Development, Database Management, Software Development Practices, Algorithms and Data Structures, Development Tools, Cloud Computing (AWS, Azure), Agile Methodologies, Unit Testing, API Development.
- **Soft Skills:** Adaptability and Flexibility, Critical Thinking, Time Management, Leadership, Problem Solving and Teamwork.

WORK EXPERIENCE

The P Foundation, Norman, Oklahoma, USA — **May 2024 - Present**
Data Science and Product Developer Intern

- **Solely Engineered** an AI-powered platform on replit.com focused on human behavior analysis, providing tailored recommendations for improving personal and relational dynamics, health, and self-awareness.
- **Independently Implemented** a secure login system with OTP verification, and automated AI-generated insights, streamlining user interactions and delivering personalized experiences.
- **Developed** an eye disease detection model using deep learning and computer vision, achieving high accuracy (e.g., 95%) in detecting conditions like Glaucoma and Cataract.
- **Preprocessed** large datasets (e.g., 10,000+ images) to improve model performance, resulting in faster training times and enhanced accuracy
- **Optimized** machine learning workflows through end-to-end automation scripts and advanced data augmentation techniques, improving model performance and reducing manual intervention.

PROJECTS

Online Doctor Appointment Booking System PHP and MySQL

- **Deployed** web development techniques to build an Online Doctor Appointment Booking System using PHP and MySQL. **Managed** user accounts, doctor profiles, and appointment schedules while **ensuring** efficient data storage and retrieval through MySQL databases.
- **Engineered** a comprehensive web-based system that **enables** users to browse doctor profiles, book appointments, and manage schedules. **Developed** backend functionality in PHP, **implemented** user authentication, and **leveraged** MySQL for robust database management, delivering dynamic page rendering for a seamless user experience.
- **Streamlined** healthcare services by **allowing** patients to schedule appointments conveniently, **reducing** wait times, **optimizing** doctors' schedules, and **enhancing** overall user experience through accessible, user-friendly functionality.

Library Management System Using PHP, HTML, CSS, MySQL

- **Harnessed** web development technologies to build a Library Management System using PHP, HTML, CSS, and MySQL. **Handled** book cataloging, user accounts, and loan tracking, while **ensuring** the structured storage and retrieval of data through a MySQL database.
- **Developed** a web application that **automates** key library functions, such as adding, updating, and deleting book records, managing user profiles, and tracking borrowing and returns. **Utilized** PHP for backend operations, HTML and CSS for front-end design, and MySQL for database management, **delivering** a comprehensive solution for library operations.
- **Optimized** library services by **streamlining** operations, **enhancing** user satisfaction, and **improving** inventory control and data integrity. **Enabled** libraries to manage resources more effectively, leading to increased productivity and user engagement.

Stream-Z: AI-Powered Global Streaming Search Platform

- **Designed and developed** an advanced React-based streaming search platform, Stream-Z, allowing users to discover movies and series across various global streaming platforms, utilizing the TMDb API to deliver real-time search results and comprehensive metadata.
- **Implemented and integrated** a search engine feature, dynamically filtering movies and series by country and streaming service. Enhanced user experience by providing instant visibility into which platforms and countries content is available, tailored for both regional and global audiences.
- **Optimized platform scalability and performance**, handling API data for over 190 countries and multiple streaming platforms like Netflix, Amazon Prime, Disney+, Hulu, and more. **Collaborated** on refining UI/UX to support smooth navigation and accessibility, leading to improved engagement and user satisfaction.

PUBLICATIONS

- **User-Centered Design in Agile: Integrating Psychological Principles for Enhanced User Experience.** Peer-reviewed publication in Volume 10, Issue 05, May 2024, pp. 9888-9892.