



Harsha Vardhan Reddy Bindela

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Professional Summary

- 2+ years of experience in software development with proficiency in **PHP, Python, JavaScript, Flask**, and database management systems like **MongoDB** and **MySQL**.
- Strong expertise in **optimizing application performance** through techniques like **lazy loading, code minification, and caching**, resulting in improved application speed and user experience.
- Participated in **end-to-end development** of various web applications and database management systems, following best practices in **Agile** and **Waterfall methodologies**.
- Demonstrated comprehensive expertise in **AWS services** (EC2, S3, RDS), with certifications in **AWS** and **Azure AI**.
- Engineered advanced **machine learning models** for healthcare diagnostics, including **CNNs** and **SVMs**.
- Mastered **data analysis** with **Pandas, NumPy**, and **Matplotlib** to derive insights from datasets and enhance model performance.
- Hands-on experience with the **Software Development Life Cycle (SDLC)** across all phases: Inception, Elaboration, Construction, and Transition.
- Orchestrated **team efforts**, delivering results through strong communication, collaboration, and quick learning skills.

TECHNICAL SKILLS

- AI/ML Technologies: TensorFlow, Scikit-learn, CNNs, SVMs.
- Development: Python, PHP, JavaScript, JQuery, Ajax, NodeJS, C, HTML, CSS, Flask, Bootstrap, Tailwind, Vercel
- Data Analysis: Pandas, NumPy, Matplotlib, Data Visualization, Statistical Modeling, Data Preprocessing
- Database Management: SQL, MongoDB
- Tools: Jira, Tableau, MS Office, Jupyter Notebook, VS Code, Postman, MS Visio
- Version Control: GitHub, GitLab
- Cloud: AWS (EC2, S3, RDS), Azure AI Services (AI Search, Document Intelligence), Azure Blob Storage
- Skills: Data Analysis, Pandas, NumPy, Matplotlib, Scikit-learn

EDUCATION

- **Master's in computer science** from Saint Louis University, Saint Louis, USA
- **Bachelor's in computer science** from Bharath University, Chennai, India

CERTIFICATIONS

- AWS Cloud Quest: Cloud Practitioner
- Microsoft Certified: Azure AI Fundamentals
- ReactJS Training - Scaler
- SQL and Relational Databases - Cognitive Class
- HTML 5 and Advanced Python – Udemy

PUBLICATIONS

Title: Heart failure prediction using Artificial Intelligence methods

Mar 2023

Publisher: IEEE AIPR 2023

- Developed an SVM model with an RBF kernel, achieving a high classification accuracy of 91.85%, demonstrating potential in heart disease diagnosis.
- Utilized K-means clustering to discover hidden patterns within patient data, aiding in identifying potential heart disease subgroups for early intervention.
- The study's findings contribute to the advancement of personalized healthcare, underlining the effectiveness of machine learning in enhancing diagnostic precision.

Technologies: SVM, RBF Kernel, K-means Clustering, Python, Data Analysis

WORK EXPERIENCE

Role: Front-end Developer Intern, UpUnikSelf Inc.

Aug 2024 – Present

Project Goal: The project aims to develop a fully responsive and high-performance web application that improves accessibility, integrates seamlessly with APIs, and ensures compatibility across all devices. This will empower global retailers to adopt cryptocurrency easily and securely, enhancing their ability to participate in the digital economy while providing an optimized user experience.

- Developed and maintained responsive web applications using TypeScript, Next.js, and Tailwind, ensuring compatibility across all devices and optimizing performance with Lighthouse.
- Optimized website performance by implementing techniques such as image compression, code minification, and lazy loading, with images stored in Azure Blob Storage for efficient content delivery.
- Implemented responsive design principles to create a mobile-first experience, ensuring optimal performance across mobile, tablet, and desktop devices.
- Used Agile methodologies, participating in sprint planning, daily stand-ups, and retrospectives to ensure timely project delivery and team collaboration.

Technologies: HTML, CSS, JavaScript, TypeScript, Next.js, PHP, SQL, Tailwind, VSCode, Git, Slack, Microsoft Loop, Agile, Azure Blob Storage, Lighthouse

Role: Graduate Assistant, Saint Louis University, Saint Louis

Aug 2023-May 2024

Project Goal: *The project aims to develop a full-stack web application where hospital staff can upload chest X-ray images to diagnose lung diseases. The application will identify the type of lung disease and provide a percentage of how much the lungs are affected, improving the speed and accuracy of medical diagnoses. The platform will ensure a user-friendly interface, real-time processing, and device accessibility while maintaining high performance and data security.*

- Built a full-stack web application using HTML, CSS, JavaScript, Flask, and SQL ensuring a responsive and user-friendly interface for medical professionals to perform real-time diagnoses.
- Designed and implemented cross-platform functionality to maintain compatibility across web browsers and mobile devices, enhancing accessibility for healthcare users.
- Developed and tested custom features to ensure seamless integration with backend services and databases hosted on Microsoft Azure.
- Managed the content lifecycle for web updates, ensuring timely and consistent uploads, refreshes, and optimizations based on user feedback and analytics by the lighthouse.
- Debugged and troubleshooted front-end and back-end issues, optimizing the application's performance and ensuring smooth operation.
- Conducted usability testing and gathered feedback to improve the user experience, refining the web interface based on data-driven insights.
- Worked with version control tools like Git to track changes and collaborate effectively with team members on the web development project.
- Followed Agile methodology and SDLC processes like sprint planning, daily stand-ups, and release management to ensure efficient project delivery.

Technologies:

HTML, CSS, JavaScript, Flask, SQL, Figma, Microsoft Azure, Lighthouse, Git, SEO Best Practices, Cross-Browser Compatibility, SDLC, Agile Methodology, Jira.

Project: Student Database Management System

Jan-July 2024

Project Goal: *Engineered a scalable and maintainable student database management system by combining robust back-end processing with a sleek front-end design. Leveraged Python and Flask to build a reliable application that streamlines data management and enhances user experience.*

- Architected the back end using Flask and Python to ensure efficient data processing and interaction.
- Integrated session management, cookies, and user roles for secure access control and personalized experiences.
- Automated notifications through email integration, facilitating communication between instructors and students.
- Enhanced data imports with bulk CSV processing for seamless database updates and streamlined operations.
- Built a responsive UI using CSS Bootstrap and implemented features like auto-loading of lists on scroll for improved user navigation.
- Incorporated PDF generation for exporting student data and reports and used MySQL for secure and reliable data storage.
- Adopted the MVC architecture for modularity, making the system scalable and maintainable.

Technologies: HTML, CSS Bootstrap, JavaScript, jQuery, Ajax, Python, Flask, MySQL, GitHub, VSCode, MVC Architecture, CSV Integration

Project: Pesticide E-Commerce Website

Aug-Dec 2022

Project Goal: *Developed a responsive e-commerce platform to facilitate direct pesticide procurement, eliminating intermediaries between pesticide companies and farmers, thereby enhancing efficiency and reducing costs. Launched the design and development of the platform, focusing on creating a user-friendly interface for seamless transactions.*

- Synchronized project management and collaboration tools such as Jira and GitHub to streamline workflow and maintain effective version control.
- Executed comprehensive testing and leveraged Docker and CircleCI for containerization and continuous integration, ensuring a robust and scalable application.
- Diligently engaged in Agile practices, working closely with the team in sprints, scrum meetings, and retrospectives to drive project success.

Technologies: HTML, CSS, JavaScript, PHP, MySQL, Agile Methodology, Jira, GitHub, Docker, CircleCI.