Sai Praveen Kudapa

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EDUCATION

Master of Science in Computer Science December 2023
Stevens Institute of Technology, Hoboken, New Jersey, USA

Bachelor of Technology in Computer Science and Engineering May 2020
Amrita Vishwa Vidyapeetham, Bangalore, Karnataka, India

TECHNICAL SKILLS

- **Languages**: Core Java | Python | C | C# | SQL | HTML | CSS | JavaScript | YAML | AngularJS | Bootstrap | ReactJS
- **Tools**: GitHub | Jenkins | Visual Studio | VS code | SAP Crystal Reports | Docker | MongoDB | MySQL
- **Platforms & Technologies**: Ubuntu | Google Cloud Platform | AWS | ASP.Net | Tableau | PowerBI
- **Operating System:** Windows | Linux | MacOS | Android
- **Certifications:** Google Certified Data Analytics from Coursera | Data Structures and Algorithms from LinkedIn

PROFESSIONAL EXPERIENCE

Software Developer | SSIT SOLUTIONS, Hyderabad, Telangana, India July 2019 – July 2022

- Developed a customized ERP model and implemented **Scrum** and **Agile** techniques to create a development process.
- Ensured a consistent and visually appealing user experience through the utilization of **Bootstrap, CSS**, and **ReactJS**.
- Utilized RESTful APIs for system integration, significantly improving inter-service communication and data exchange.
- Analyzed **NuGet package** dependencies and integrated them into the **ASP.NET** Core application for **Micro Services**, thereby optimizing ERP functionalities.
- Actively participated in collaborative efforts, conducted regular code reviews, and managed the source repository using **Git**.
- Established **APIs** using **ASP.NET Web API**, facilitated efficient queries and integration with the ERP system.
- Designed and implemented the **Inventory Management module**, focused on stock tracking, orders, and warehouse management.
- Created secure **EDI** and **APIs** with **WCF** and maintained data protection measures to ensure that information was shared smoothly to prevent unauthorized access and data breaches.
- Developed **Sales module**, and incorporated features for lead tracking, customer communication, and sales reporting.
- Contributed to the design and development of a distributed computing environment to optimize the ERP system's scalability and performance.
- Designed user interfaces with optimal functionality and security and leveraged knowledge in **ASP.Net MVC** and **C#**.
- Conducted unit testing using **MSTest** and **Moq** framework to ensure the reliability and stability of ERP modules.
- Implemented database structures to store customer information, sales orders, and transaction history.
- Added **triggers**, **joins**, and **procedures** to **MS SQL Server** to better data manipulation. this resulted in a 50% boost in processing speed and a 30% improvement in data correctness.
- Utilized **Crystal Reports** to maintain records and created customized reports for several purposes.
- Contributed to the Reporting module, incorporating **SQL Server Reporting Services (SSRS)** for generating reports.
- Leveraged **entity framework** for seamless mapping of entity objects to relational databases and enhanced data consistency.

PROJECTS

Disease Detection Through Advanced Audio Analysis | Stevens Institute of Technology July 2023 – October 2023

- Executed comprehensive data preprocessing on respiratory sound data and utilized sophisticated audio analysis libraries to extract **Mel-Frequency Cepstral Coefficients (MFCCs)** which are critical in audio pattern recognition tasks.
- Developed a high-accuracy classification model using deep learning techniques. The model was trained to distinguish between different types of respiratory sounds, and achieved an **89% accuracy rate**, indicating strong predictive capabilities.
- Conducted an exhaustive evaluation of the model's performance. This included detailed loss and accuracy visualization to assess the model's learning progress and confusion matrix analysis to understand the model's predictive behavior across different classes.
- Utilized **NumPy** for numerical data handling, **Pandas** for data structuring, **PyTorch** and **TensorFlow** for model building and training, **Keras** for high-level neural networks API, and **Scikit-learn** for additional machine learning tools necessary for model evaluation.

E-Wallet Project | Stevens Institute of Technology January 2023 - July 2023

- Spearheaded the creation of a secure e-wallet application, leveraging **Jenkins** for continuous integration and utilizing AWS and Kubernetes for scalable cloud hosting. **Docker** was employed to containerize the application, ensuring isolated and consistent deployment environments.
- Focused on **Java backend services** and implemented key **API** endpoints for financial transactions, achieving robustness and high availability.
- Enhanced the project by introducing an **IOS module**, focusing on a seamless and intuitive user interface for mobile devices.
- Managed source code versions and team collaboration using **Git**, ensuring organized and traceable development progress.
- Expertly utilized **Amazon ECR** for the secure storage of Docker container images, facilitating reliable and secure application deployment.

Housing Price Prediction | Stevens Institute of Technology January 2022 – July 2022

- Developed an advanced predictive model for housing prices, achieving an impressive **92% accuracy**.
- Utilized **Pandas** for data manipulation and **Scikit-learn** for implementing a gradient-boosting regression model.
- Performed intricate data analysis on complex datasets and improved the feature engineering process using **Python**, showcasing advanced data analytical capabilities.
- Implemented a sophisticated gradient-boosting regression approach, which resulted in a substantial **20% reduction in Mean Squared Error**, demonstrating a deep understanding of machine learning techniques and model refinement.