

Samvedhya Bendapudi

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🌐 samvedhyabendapudi.github.io/SamvedhyaPortfolio

Education

San Diego State University (San Diego, CA)

08/2024 - 05/2026

Master's in Computer Science

Coursework: Analysis of Algorithms, Database Theory Implementation, Machine Learning, Principles of Data Science, Computer Networks and Distributed Systems

GITAM University (Visakhapatnam, INDIA)

06/2019 - 04/2023

Bachelor of Technology in Computer Science and Engineering

GPA: 8.46 / 10.0

Skills

- **Languages:** Python, Java, C, SQL, HTML/CSS, JavaScript
- **Software Development:** Reactjs, Springboot, Bootstrap, Node.js, Docker, Ansible, Terraform, Kubernetes, REST, Model View Controller(MVC), MySQL, PostgreSQL, NoSQL, MongoDB, SaaS, JUnit, Networking, Scrum, Agile
- **Tools/Platforms:** Git, Burpsuit, Hadoop, Wireshark, Postman, Gradle, Maven
- **Skills:** CI/CD, Data Structures, Algorithms, Object Oriented Programming

Experience

MPB Ark Exim (Visakhapatnam, India)

Software Engineer Intern

10/2023 - 06/2024

- Utilizing cutting-edge technologies like **React, Node.js, and MongoDB**, we engineered and optimized scalable APIs and background processes to achieve industry-leading **25ms** response times. Increasing the effectiveness of data sharing between front-end and back-end systems and boosting user experience.
- Spearheaded end-to-end development and testing of **5+** key products, from initial requirements gathering to deployment, utilizing Agile methodologies.
- Redesigned web application security frameworks by implementing OAuth 2.0 for authentication and authorization, enhancing security protocols and strengthening user access controls by **10%**, mitigating potential security breaches.

Hitachi Vantara (Bengaluru, India)

Application Engineer Intern

01/2023 - 08/2023

- Contributed to SDLC by designing System Architecture and developing functional-based System Use Cases.
- Made Employee Database Management System using **ReactJS** and **Spring Boot** under experienced employees at Hitachi. Shadowed under real-time project "**Hitachi Energy Project**".
- Participated in Daily Scrum, Sprint planning, and task estimation. Presented demos at the end of each sprint.
- At Hitachi, I implemented **CI/CD** tools like **Terraform, Ansible, Docker, and Kubernetes** to gain practical expertise with Amazon AWS. Terraform was used to manage cloud infrastructure and Docker was used to containerize applications.

Skillsquad (Hyderabad, India)

Software Development Intern

10/2021 - 03/2022

- Optimized the learner study section by redesigning the code architecture, resulting in reduced page load times from **20 seconds to 2 seconds**. This enhancement increased user satisfaction scores and platform retention by **20%**.
- Leveraged a robust tech stack including **React, JavaScript, Ruby on Rails, and Postgres SQL** to implement and optimize all features across the platform. Redesigned the study cards, reducing the footprint by **25%** to enhance visual accessibility and decrease cognitive load.

Projects

- **Brain Tumor Detection System:** Developed a brain tumor detection system using VGG16 with TensorFlow, achieving **99%** accuracy through data augmentation. Built a REST API using Flask and FastAPI, and created a responsive React front-end with Python, PIL, and JavaScript. Deployed the model with Gunicorn and caching for efficient, scalable performance.
Tech: TensorFlow, VGG16, Flask, FastAPI, React.js, Python, PIL, JavaScript, Gunicorn, HTML/CSS.
- **Personal Finance Manager:** Developed a financial management system that tracked spending, generated budgets, and offered spending insights, resulting in a **30%** improvement in users' budgeting practices. Integrated REST APIs for real-time currency conversion rates and suggestions for saving money.
Tech: Tailwind CSS, NPM, Redux, PostgreSQL, React.js, and Springboot.
- **Fitness App:** Engineered a fitness app using React.js and RapidAPI, with activity category and muscle group selection was developed. Improved user engagement by implementing pagination and exercise recommendations, integrating YouTube API for related videos, and allowing users to peruse over **1000** exercises with thorough explanations and examples.
Tech: React.js, RapidAPI, YouTube API, JavaScript, HTML/CSS, NPM.
- **Loan Management App:** Developed a loan management system to oversee and approve user loans utilizing the MERN stack. Included safe JWT-based authentication and created loan calculators for individualized budgeting. React Router improves user experience and allows for fluid navigating. Connected MongoDB to Express.js to handle backend functionality and Mongoose for effective data management.
Tech: MongoDB, JWT Authentication, Mongoose, React Router, Node.js, Express.js, React.

Achievements and Leadership

- Designed Fitness App which secured **3rd place** in the nation wide 24 Hour Hackathon organized by Vignan University.
- Received a **25%** scholarship for academic performance during bachelor's.
- Published paper in IJRCC: Securing Cloud Data with Diffie-Hellman and AES Encryption.
- Beta learn student ambassador. Educated 350+ students about open source in GITAM University.