Samvedhya Bendapudi

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Education

San Diego State University 08/2024 - 05/2026
Master's in Computer Science

Gitam University 06/2019 - 04/2023
Bachelor of Technology in Computer Science and Engineering ***GPA: 8.46 / 10.0***
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Experience

MPB Ark Exim (VSKP, IND) ***Software Development Intern*** 09/2023 - 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 (BLR, IND) ***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 (VSKP, IND) ***Full Stack Developer Intern*** 09/2021 - 06/2022

- Front-end development was done with **React.js, HTML, CSS, JavaScript**, and **jQuery** for validations.
- **PL/SQL**, Oracle Stored Procedures, and **Node.js** was used to implement backend operations.
- Customized server-side scripts were written for **GIT** interaction with **JIRA** and Jenkins, and **JUnit** test cases were created for unit testing.
- Exhibited expertise using AWS and Azure, two popular cloud computing platforms.

Datapro (VSKP, IND) ***Machine Learning Intern*** 08/2020 - 01/2021

- Leveraged advanced data mining and analytical techniques with **Matplotlib, Seaborn, Tableau, and Python**, driving strategic decisions by uncovering key user behavior trends. This analytical approach led to a **15%** improvement in content curation, significantly enhancing user engagement and satisfaction.
- Applied ensemble learning techniques, including Random Forests and Gradient Boosting, to enhance content recommendation models. Thereby increasing accuracy by **13%**, directly contributing to a more personalized user experience.
- Innovated with deep learning architectures, particularly **RNNs** and **LSTM** networks, to refine content recommendation algorithms, achieving a **18%** boost in prediction accuracy. This enhancement led to higher user retention rates.

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."
- **Securing Cloud Data with Diffie-Hellman and AES Encryption.** Pioneered a strong cloud security framework that combines digital signatures, Diffie-Hellman key exchange, and Advanced Encryption Standard (AES). Strong data encryption is offered by AES, secure key exchange is facilitated by Diffie-Hellman, and authentication and integrity are guaranteed by digital signatures. In addition to improving overall **98%** data security and access control, this multi-layered strategy reduces the risks associated with key compromise.This was published in **IJIRCCE**.
- **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

Skills

Languages: Python, JavaScript, Java, C, Data Structures, Algorithms
Software Development: Reactjs, Typescript, jQuery,Springboot, Bootstrap, Node.js, Docker, Kubernetes, REST, Model View Controller(MVC), SQL, MySQL, PostgreSQL, NoSQL, MongoDB, SaaS, Networking, Scrum, Agile
Machine Learning: NumPy, Pandas, Scikit-learn, TensorFlow, PyTorch, Keras, NLTK, Spacy, OpenCV, Matplotlib, Seaborn
Tools/Platforms: Git, Linux, Burpsuit, Hadoop, Wireshark, Tableau, CI/CD, AWS, Object Oriented Programming