

Shanmukh Krishna Boddu

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Experience

Software Engineer – NCR Corporation

Jan 2020 – Dec 2021

- Utilized **Python** for server-side backend business logic implementation and **HTML**, **CSS** and **JavaScript** for frontend development.
- Created selfservice web application reducing manual effort by 80% using **React** and **NodeJS** in collaboration with 4 other engineers.
- Achieved 75% reduction in deployment time by implementing **CI/CD** workflows using GitHub Actions, resulting in improved development efficiency.
- Leveraged database management systems including **PostgreSQL** and **GraphQL** to optimize data storage and retrieval processes, resulting in a **20%** improvement in query performance.
- Developed and maintained **RESTful APIs** using **JavaScript**, ensuring seamless communication between front-end and back-end systems to deliver robust web applications.

Software Engineer Intern – NCR Corporation

Sep 2019 – Dec 2019

- Collaboratively developed a full stack application using **HTML/CSS/JavaScript/TypeScript** for interactive and responsive user interface, **NodeJS** to perform robust backend server operations.
- Utilized **JUnit** for unit testing, leading to a notable 5-hour per week reduction in testers' workload.
- Leveraged **Jira** for bug tracking, successfully identified and resolved 15-20 bugs, ensuring improved software quality, and reducing potential business impact.

Database Engineer Intern – Artha Solutions

Jun 2019 – Aug 2019

- Designed and implemented scalable relational database management systems MySQL.
- Reduced response time by 30% and improved system efficiency by employing performance optimization, query tuning and index optimization techniques.

Projects

YouTube transcript summarizer | NextJS, LLM, OpenAI, LangChain, AWS, HTML, CSS

- Developed a YouTube Transcript Summarizer project using LangChain's YouTube API to efficiently fetch video metadata.
- Utilized LangChain's **OpenAI** ChatGPT 3.5 large language model integration to implement an advanced summarization algorithm for condensing the transcripts extracted from fetched metadata.
- Implemented the project using Next.js for efficient server-side rendering and leveraged **AWS** for seamless deployment.

Quizzical | React, HTML, CSS, JavaScript

- Created "Quizzical," an adaptive mobile first web-based game designed to challenge users' cognitive abilities and knowledge.
- Utilized **React's** component-based architecture to implement dynamic quiz questions and answers, enabling users to select topics across various categories and difficulty levels, enhancing the game's replay value.
- Deployed the "Quizzical" application seamlessly on the [Vercel](#) platform, ensuring high availability and fast loading time.

Airport Management System | React, Django, HTML, CSS, JavaScript, SQLite

- Collaborated with team members and implemented an airport management system using - Python (Django), SQLite, and **HTML/CSS**, that enabled personnel to oversee flights and assets, allowing customers to access information and make bookings.
- Developed and deployed a flight price prediction feature using an ensemble method (Random Forest), attaining 96% accuracy.
- Executed role-based authentication using **Django's** user authentication system, resulting in avoiding unauthorized access and a 99.9% uptime upon successful deployment on PythonAnywhere cloud platform.

Tour Guide | HTML, CSS, JavaScript

- Developed a dynamic and responsive Tour Guide web application listing top 3 places to visit in a city using **HTML**, **CSS** and **JavaScript**.
- Successfully deployed the project in [cloud platform](#) showcasing effective problem-solving and coding skills.

Education

M.S., Software Engineering

Jan 2022 - Dec 2023

San Jose State University – San Jose, CA, USA

GPA - 3.7/4.0

Publication

- Published a research paper on Human Age and Gender Estimation using Support Vector Machine (SVM) in [ICACECS International Conference](#).

Skills

Programming Languages: Python, Java, C#, C, C++

Web Technologies: HTML, CSS, JavaScript, TypeScript

Frameworks/libraries: Django, React, ASP.NET, Flask, NodeJS, Spring Boot, Scikit-learn, TensorFlow, Pandas, NumPy, MATLAB

Tools: Tableau, VS Code, IntelliJ, Git, PowerShell, Postman, Artifactory, Jira, Confluence, Bitbucket, Jenkins, Docker, MS Office

Databases: MSSQL, PostgreSQL, MongoDB, MySQL, Oracle, Hadoop, SQLite.

Cloud Technologies: AWS, Azure, GCP, Linux, Heroku

Extracurriculars

- Instructional Student Assistant** – San Jose State University

Aug 2022 – May 2023

- Head of the Dance crew** ([Livewire](#))

Aug 2019 – Sep 2020