## Sai Krishna Bhavana

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#### **EDUCATION**

MS in CS, California State University Long Beach, CGPA - 3.9/4 Bachelor's in computer Science, Hindustan University, CGPA - 3.97/4

January 2022 - May 2023 August 2016 - May 2020

#### **SKILLS**

**Programming Langages/Databases:-**,Java, Python, C#,.Net,ASP.NET,SQL,Typescript,Bootstrap,JSON **Web Technologies :-** REST,HTML,CSS,JavaScript,jQuery,AngularJS,ReactJS,MVC,PHP,UNIX

Debugging & Automation :- Selenium, Junit, CI/CD, Webdriver, Postman, HP Quality Centre, API Testing

Tools: MS SQL Server, Git, JIRA, Selenium, Jupyter, Visual Studio, Eclipse, Postman.

Data Science: NumPy, Pandas, Tableau, SciKit, Keras, OpenCV, Tensorflow.

Cloud: Amazon web services, Microsoft Azure, GCP, Docker, Kubernetes, Jenkins, Postgres, GitLab,

#### **EXPERIENCE**

## Research Assistant, Institutional Research & Analytics - California State University, Long Beach Febrauary 2022 - Present

- Assist in reviewing and summarizing relevant literature and research papers in the field of study to gather background knowledge and identify research gaps.
- Analyze collected data using statistical or computational techniques.
- Develop software tools or scripts to support research projects. This may involve writing code in programming languages like Python, Java, C#, depending on the project requirements.
- Collaborate with researchers to design experiments or simulations. Implement the experimental setup, collect data, and ensure proper documentation.
- Maintain accurate records of research methods, procedures, and results. Prepare research reports, presentations, or scientific papers for publication or conference presentations.
- Assist in maintaining research equipment, software licenses, and lab resources. Ensure compliance with safety protocols and maintain a clean and organized research environment.
- Present research findings to the research team, faculty, or at conferences. Communicate effectively through oral presentations, posters, or written reports.

## Software Developer, Tata Consultancy Services Ltd, Hyderabad, India

Jan 2021 - Feb 2022

- Worked as a team Lead for an insurance project provided the guidance to team members ensuring adherence to coding standards.
- Conduct in-dept domain analysis to understand the client requirements and rules.
- Designed and developed a project using Java. Streamlined the development processes using SpringBoot and Django
- Created an intuitive user interface using HTML, CSS, ReactJS and AngularJS.
- To Validate the software functionality we worked on Junit, Selenium and NUnit frameworks and performed integration testing and participated to verify end-end project flow.
- Engaged in requirement clarification sessions and provided technical Insights and recommendations to client.
- Attended company conferences, workshops and training sessions to enhance my skills and knowledge better.

## Full Stack Developer, MyPustak, India

Jan 2020 - Dec 2020

- It's a book publishing website, overseeing the entire development lifecycle, and ensuring timely delivery of high-quality.
- Coordinating with stakeholders, including designers, content creators and marketing teams to implement features like books catalog management, user reviews, author profiles and recommendation systems.
- Designed and developed a project using python to build the back-end infrastructure and created a User Interface (UI) of the
  website using JavaScript and TypeScript and build the server-side logic and APIs using Python using Flask Framework and
  integrating with databases using MongoDB for NoSQL databases and SQL for relational databases.
- Integrated payment gateways (Stripe, PayPal)
- Collaborated with QA teams to perform end-to-end testing and bug fixes.
- Finally Setting up deployment pipelines and automating the process using Jenkins and CI/CD.
- Configured the cloud infrastructure using AWS to host the website.
- Ensuring the website's performance, Scalability and monitoring by Docker and Kubernetes.

# Software Engineer, Shiash Infotech India

Aug 2019- Dec 2019

- Designing, Developed the game application using C# and ASP.NET framework and building game mechanics, implementing gameplay features, integrating graphics and audio assets.
- Created User Interfaces for games using Unity3D and WPF by implementing UI elements, handling user input and creating visually appealing game interfaces.
- Developed Server-side components for multiplayer games using C# and .NET and handling data storage, game mechanics and communication b/w clients and server.
- Utilized Microsoft SQL Server to store game-related data, player profiles and game related information.
- Collaborating with designers and other developers to integrate and how to enhance smooth game development and deployment.
- Conducted Unit testing and debugging to ensure the functionality and stability for the game by exploring new frameworks, libraries and game development methodologies.
- Maintained and optimized the codebases for better performance and improved the code by refactoring methods.

## Software Developer Intern, Digital Impact Square, Tata Consultancy Services Foundation, India September 2018- Dec 2018

- Contributed to a child welfare project where years of child abuse was mapped using Naive bayes and Logistic regression clustering using Python.
- Gaining hands-on experience with programming languages such as Java, Python, or C# and utilizing frameworks and tools based on the specific projects.
- Collaborating with fellow interns and team members to share knowledge, exchange ideas, and address many technical issues or challenges faced by them during their project work.
- Actively seeking information to enhance technical skills, learn new technologies, and stay updated with industry trends.

#### **CERTIFICATIONS: -**

- The Web Developer Bootcamp (Udemy): A comprehensive course covering front-end and back-end web development.
- Full Stack Web Developer Nanodegree (Udacity): A program focusing on essential technologies like React, Node.js, and Express.
- Microsoft Certified: Azure Developer Associate: Demonstrated proficiency in developing applications using .NET and Microsoft Azure.
- AWS Certified Developer Associate: Validated skills in developing and maintaining applications on the Amazon Web Services (AWS) platform.
- Oracle Certified Professional, Java SE Developer: Validated expertise in Java programming, an essential language for enterprise-level applications.
- Certified Front-End Developer (W3C): Validates understanding of web standards, HTML, CSS, and JavaScript
- Modern Application Development, Indian Institute of technology, Madras

#### **PROJECTS**

## 1. Online Marketplace Application:

**Objective:** Create a feature-rich online marketplace application that allows users to buy and sell products securely and efficiently. **Implementation:** Develop an online marketplace using React.js for the front-end, Python with Django for the back end, and PostgreSQL for the database. Implemented features such as user registration, product listings, search functionality, shopping cart, and secure payment integration using technologies like Stripe, PayPal. Utilize RESTful APIs, JWT (JSON Web Tokens) for authentication, and implemented CRUD (Create, Read, Update, Delete) operations for products and user profiles.

## 2. Real-Time Chat Application:

**Objective**: Build a real-time chat application with seamless messaging capabilities, enabling users to communicate instantly and effortlessly.

**Implementation**: Build a real-time chat application using Angular for the front-end, Node.js with Socket.IO for the back end, and MongoDB for the database. Implement features like user authentication, real-time messaging, group chats, and online status indicators. Utilize WebSockets for real-time communication, implement message history and notifications, and ensure data persistence and scalability.

Award: Chat Excellence Award(year 2018)

## 3. Travel Planner Web Application:

**Objective:** Develop an intuitive travel planner web application that helps users efficiently plan and manage their trips, providing a seamless travel experience.

**Implementation:** Develop a travel planner web application using Vue.js for the front-end, Ruby on Rails for the back end, and MySQL for the database. Implement features such as user registration, itinerary creation, destination search, and trip management. Utilize APIs for weather information, maps, and hotel bookings, and implement features like social sharing and user reviews for destinations.

# 4. Diabetic Retinopathy Classification Tool

**Objective:** Automated Classification tool for early detection of diabetic retinopathy which is the most common cause of blindness. **Implementation:** The model was trained using a Deep Convolutional Neural Network with the implementation and model training performed on Google cloud GPU on 35126 retinal images released publicly by eyePACS on Kaggle website achieving an accuracy of approximately 81%.

#### 5. Image Caption Prediction using Deep Learning

**Objective:** Generating the captions for the images mainly used for impaired people

**Implementation:** Developed a series of specialized subnetworks using artificial neural network model, which would take the input data and extract highly specific features in order to appropriately control the RC with an accuracy of 73%. Implemented Python OpenCV scripts for image and sign detection.

Award: Computer Society of India Project Competition Winner (Year 2019)

## 6.Smart Sudoku Solver [C#, OpenCV, Tesseract OCR, Android studio, Greedy Backtracking Algorithm]

**Objective:** Live detection and processing solution using Tesseract OCR Technology

**Implementation:** Developed android application that detects live image of unsolved sudoku puzzle using camera and processes solution using image processing, OCR technology and greedy backtracking algorithm.