JAWAHAR SAI NATHANI

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EDUCATION

Indian Institute of Technology Tirupati   2018 - 2022
Bachelor of Technology **|** Computer Science and Engineering **|** 8.04/10 GPA

Narayana Junior College   2016 - 2018
Intermediate Education **|** 97.7%

Vishwabharati High School   2015 - 2016
Secondary Education **|** 98%

WORK EXPERIENCE

Software Engineer, GEP Solutions Private Limited India   July 2022 - Present
- I am presently engaged in building .NET Core RESTful APIs and Angular projects. I successfully led the migration of a full-stack application to a Low-Code Platform using Microsoft Azure Databricks.
- The technologies I have hands-on experience with encompass .NET Core, Angular 11, MongoDB, Python, and Azure Databricks.
- Achievements - SPOT RECOGNITION **[Certification]**, CATALYST **[Certification]**

Technology Intern, GEP Solutions Private Limited India   May 2021 - July 2021
- Engaged with Angular CLI, Asp.net, and SQL technologies.
- Orchestrated the design and development of an Angular CLI Web Page alongside an Asp.net server method. Angular CLI component does post and get requests to an Asp.net server which communicates with diverse SQL databases, contingent on user domain.
- Our team secured 1st prize in techathon held for GEP-Interns across India. **[Certification]**

PROJECTS

AKSHARA Annotator   Sept 2021 - June 2022
ReactJs | Django | Deep Learning | MongoDB | PyTorch | Flutter | Code
A web-based crowdsourcing application to digitize and store handwritten medical prescriptions and add a text layer to enhance document search.
- The tool utilizes subregions of a single annotation to train a subregion-detection OCR model. These trained models can then be grouped into multiple model pools as per specific requirements.
- Users can employ single or multiple model pools to annotate handwritten documents and subsequently add text layers to the document. Grouped model pools can also be shared with others within their organization.
- The subregion-detection algorithm employed for annotation detection utilizes a concise CNN with only 2 layers, sufficient enough to capture single sub-region category, leading to minimal training duration. This algorithm achieved an accuracy of 94%.
- The ecosystem of services includes a mobile application for document scanning and uploading them into the server.

KISAN SEVA   July 2020 - Dec 2020
ReactJs | NodeJs | Material UI | Flutter | Code | Web Link
An app dedicated to serving the farming community by ensuring fair value for their crops while delivering comprehensive agricultural education and best farming practices.
- This multifaceted platform caters to three distinct user types: Farmers, Dealers, and Agricultural Experts.
- Farmers leverage the EShop feature to upload their crop listings and directly engage with Dealers for sales. Dealers, in turn, can conveniently access and purchase crops showcased on the platform, forging direct connections with the farmers.
- Further enhancing communication, Dealers can seamlessly interact with Farmers via an integrated Chat functionality. This serves to deepen their understanding of crops, negotiate prices, etc.
- Agricultural Experts contribute invaluable insights by offering advice and recommendations to farmers, enhancing their agricultural endeavors.

VATC - Virtual Assistant to Type and Code
Feb 2021 – June 2021

Python | Tkinter | NLP | Code

A Text Editor developed using Python and Tkinter, featuring an integrated and advanced approach tailored to aid programmers in their coding tasks via Speech Detection.

- This tool presents a hybrid model combining speech recognition and natural language processing, designed to take users' voice commands as input and convert them into Python code snippets.
- The code generation and documentation aspects of the tool utilize a BERT model trained on a dataset of Python programs.
- A side panel is provided for searching any query or issue from internet, yielding the most relevant results. Sentiment Analysis is applied to extract the most relevant information.
- The Text Editor boasts a comprehensive feature set, encompassing: Keyword highlighting, Line number display for code organization, Debug point settings, etc.

Teachable Machine
July 2019 – Sept 2019

ReactJs | Flask | Machine Learning | Code

A Full-Stack Web Application for training and testing Custom Image Classification models, along with the capability to detect objects within images. This tool emulates several functions of Google's Teachable Machine.

- This application uses Keras and Sklearn libraries to facilitate training of custom image classification models. Additionally, it harnesses the Tensorflow Object Detection model to accurately identify objects in images.
- User can export Custom Trained models along with the necessary openCV code snippet essential for model testing and validation.

Computer Simulator
June 2021 – June 2022

Yacc | LEX | C | ARM Architecture | Code

Built Virtual Machine (for ARM Architecture), Compiler and Assembler from scratch for a custom programming language.

- Used C language to generate 3-address code and subsequently convert it into X86 Assembly Language.
- Later implemented Operating System and Processor, which was able to run basic programs including recursion and functions.

SKILLS

LANGUAGES –	Python, C++, C, C#, Java, HTML, CSS, JavaScript, TypeScript, x86, and MIPS Assembly Language
FRAMEWORKS –	ReactJS, Angular CLI, .NET Core, PyTorch, Django, Keras, Tensorflow
DEVELOPMENT –	Machine Learning, Deep Learning, Android Studio, Unity
UTILITIES –	Git, Docker, VSCode, Jupyter Notebook

RELEVANT COURSES

ONLINE –	Introduction to Internet of Things **[Certification]**, Deep Learning **[Certification]**
CLASSROOM –	Machine Learning, Deep Learning, Artificial Intelligence, Foundations of Data Science, Reinforcement Learning, Data Structures and Algorithms, Design and Analysis of Algorithms, DBMS, Computer Organisation, Compiler Design, Computer Networks, Computer System Design, Cyber Security, Software Engineering

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POSITIONS OF RESPONSIBILITY

TIRUTSAVA FEST, Coordinator of Event Management and Marketing Committee. 2021 – 2022
BOYS HOSTEL BLOCK, Representative. 2020 – 2021
NSS PROGRAM, Volunteer 2019 – 2020

HOBBIES

- Solving questions in Codechef, Hacker Rank and LeetCode.
- Participating in Hackathons and Coding Contests.
- Watching Netflix, Playing Video Games, Volleyball, and Table Tennis.