Chebrolu Sai Prasanna Abhinav

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EDUCATION

2020-2024 **VELLORE INSTITUTE OF TECHNOLOGY** *Vellore, IN*
Bachelor of Technology, Computer Science and Engineering; Cumulative GPA: ***9.07/10***

- ***Awards***: Schneider Electric Scholarship.
- ***Leadership***: Member Secretary, Student Council; Placements Co-Ordinator; Photography Club (Co-Secretary)
- Software Engineering; Operating Systems; Algorithms; Artificial Intelligence; Database Systems.

2020 **FIITJEE JUNIOR COLLEGE** *Vijayawada, IN*
BIEAP - CGPA: **8.88/10.0.**

2018 **SRI CHAITANYA HIGH SCHOOL** *Addanki, IN*
BSEAP - CGPA: **10.0/10.0.**

WORK EXPERIENCE

AMBIENT-BASED SMART HOME WITH EMOTIONAL INTELLIGENCE *Vellore, IN*
Developer, Intern

- Built an AI system with an 82% success rate that accurately detects vocal and facial expressions, analyzes user emotions, and sends the collected data to a central gateway for optimization.
- Conducted data analysis on reviews and created algorithms to identify and present the most relevant information, resulting in a 50% improvement in course accuracy.

LG CLOUD-BASED STREAMING PLATFORM *Vellore, IN*
Executioner *(on behalf of the college)*

- Results in scalability, reliability, and elasticity. Managed data with webRTC - a centralized transform (performed by Kubernetes engine, microservices, and deployment strategies). Using a multi-cloud environment helps with cost-optimization with 35% and low latency.
- Created a web application that increased user engagement by 40% by providing personalized recommendations based on individual interests and performance.

VELLORE INSTITUTE OF TECHNOLOGY *Vellore, IN*
Developer

- Overhauled the web portal to improve user experience, reducing reading time by 40% and increasing the cut-point by 60%, while also transitioning from an on-demand system to cloud-based infrastructure.
- Designed a scalable full-stack web application using the MERN stack to support 2,000+ users; mobilized page load time by 50%.
- Developed and implemented a Python script that streamlined the certificate generation and transmission process, resulting in a 40% improvement in efficiency with parallel algorithms to compute faster.

UNIVERSITY PROJECTS

MULTI-ROUND SECURE AGGREGATION BY SOUND FOR SYSTEM CHECK USING FEDERATED LEARNING *2023*
PROJECT | SOURCE CODE

- Executed a Machine Learning algorithm that captured noise from IoT devices, reducing maintenance by 40% and improving equipment uptime by 30% through Federated Learning on AWS Cloud
- Researched modulation dots and signal processing techniques to optimize sound signal transmission to the central server, resulting in an 80% connection rate increase.
- Handled TensorFlow for transparency and described how data moves through a graph. The test accuracy is 76.92%

PERSONALIZED HOME SCREEN FOR GOOGLE CHROME | SOURCE CODE *2023*

DEEP LEARNING BASED AUTOMATED IMAGE TRANSLATION FOR ANALYSIS AND DETECTION OF MALWARE IN REAL-TIME SYSTEMS – PROJECT | SOURCE CODE *2022*

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- Implemented novel image processing techniques that identified and classified specific virus strains using CNN; archived accuracy by 20% and reduced false-positive rate by 45%.
- Contributed to Image segmentation, morphological analysis techniques, and detection of viruses using DL algorithms and achieved 98.5% accuracy.

GoNav: AI-Based Travel Planner and Guider – Project 2022

Other

- **Achievements:** Winner at LG Hacks for Ambient based intelligent home systems
- **Languages**: English (Fluent), Telugu (native), Hindi (intermediate), French (Foreign Language)
- **Coding Skills**: Python, Java, C/C++.
- **Cloud architecture and development**: AWS, Azure, Google Cloud Platform
- **Cyber/info security**: Penetration testing, vulnerability assessment, network security
- **Artificial intelligence and machine learning**: Python, TensorFlow, Keras, sci-kit-learn
- **Data analysis**: MATLAB, Python, R, SQL, Tableau, Power BI, Flourish Studio, ZOHO.
- **Graphic design**: Photoshop, Illustrator, Figma
- **Full-stack development**: MERN stack (MongoDB, Express, React, Node.js), HTML, CSS, JavaScript
- **Certifications**:
  AWS Solution Architect (Ongoing), IBM-AI Analyst, AWS Cloud Practitioner, Microsoft Azure Fundamentals (AZ-900), Azure AI Fundamentals (AI-900), Azure Data Fundamentals (DP-900), Azure Security Compliance and Identify Fundamentals (SC-900), Google Digital Marketing, Big Data – UCSanDiego, MATLAB (Fundamentals, Onramp, Programming Techniques), Salesforce Administrator, Hackerrank (Competitive Solving, Python) Certified Applied AI Professional and AI Engineering Professional.
- **Volunteering**: Volunteered most of the college events and led the Riviera 2023 – Annual Sports and Cultural Fest of VIT, Vellore.

Patents

Bandwidth-based audio and video splitting *Sept 2022 – Filed Patent under Indian Patent*

- Splitting of audio and video as different instances in the cloud
- Transmitting audio when low bandwidth upgrades by disabling video.

Research Papers

Software Defect Detection and Prevention in Agile based process using Artificial learning methods
Guided by Prof. Manikandan N, Prof. Ruby D, Prof. Gayathri A. *2022*

Deep Learning Based Automated Image Translation For Analysis And Detection Of Malware In Real-Time Systems *2022*
Stimulated with Prof. Manikandan N, Prof. Ruby D.

Abnormal Feature Extraction From EEG Of Schizophrenia Person With SWT *2022*
Handled with Prof. Gopinath MP and Prof. Aarthy SL.