

Chebrolu Sai Prasanna Abhinav

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EDUCATION

2020-2024	VELLORE INSTITUTE OF TECHNOLOGY <i>B.Tech, Computer Science and Engineering; Cumulative GPA: 9.05/10</i> <ul style="list-style-type: none">• Awards: Schneider Electric Scholarship.• Leadership: Member Secretary, Student Council; Placements Co-Ordinator;• System Design; Software Engineering; Operating Systems; Algorithms; AI; Database Systems.	Vellore, IN
2020	FIITJEE JUNIOR COLLEGE <i>BIEAP - CGPA: 8.88/10.0.</i>	Vijayawada, IN
2018	SRI CHAITANYA HIGH SCHOOL <i>BSEAP - CGPA: 10.0/10.0.</i>	Addanki, IN

WORK EXPERIENCE

SMART HOME SYSTEM UTILIZING AMBIENT INTELLIGENCE WITH EMOTIONAL AWARENESS 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.

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%

AWS BASED REALTIME CCTV MONITORING SYSTEM 2023

- Enhanced using RTSP-Protocol (*IoT-TwinMaker, IoTGreenGrass, Kinesis-Video-Stream, IoT-SiteWise, Grafana, Elemental Live Storage*)

PERSONALIZED HOME SCREEN FOR GOOGLE CHROME SOURCE CODE	2023
DEEP LEARNING BASED AUTOMATED IMAGE TRANSLATION FOR ANALYSIS AND IMAGE BIND TECHNIQUES TO TRANSLATE – PROJECT SOURCE CODE (1) (2)	2022
<ul style="list-style-type: none"> 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 LIVE	2022

SKILLS

- **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 Developer Associate, AWS Solution Architect, IBM-AI Analyst, Microsoft Azure Solution Architect Expert (AZ-305), Meta Full Stack Development, Azure AI Fundamentals (AI-900), Azure Security Compliance & Identify Fundamentals (SC-900), Big_Data(UC SanDiego & Microsoft Azure Data Fundamentals) Google Digital Marketing, MATLAB, Certified Applied AI & 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	<i>Sept 2022 – Filed Patent under Indian Patent</i>
<ul style="list-style-type: none"> 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	
<i>Guided by Prof. Manikandan N, Prof. Ruby D, Prof. Gayathri A.</i>	2022
DEEP LEARNING BASED AUTOMATED IMAGE TRANSLATION FOR ANALYSIS AND DETECTION OF MALWARE IN REAL-TIME SYSTEMS SOURCE CODE	
<i>Stimulated with Prof. Manikandan N, Prof. Ruby D.</i>	2022
ABNORMAL FEATURE EXTRACTION FROM EEG OF SCHIZOPHRENIA PERSON WITH SWT	
<i>Handled with Prof. Gopinath MP and Prof. Aarthy SL.</i>	2022

PASSPORT & ADDRESS

Passport ID: **V9232709** (Resident of India)

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