

Chebrolu Sai Prasanna Abhinav

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EDUCATION

2020-2024	VELLORE INSTITUTE OF TECHNOLOGY <i>Bachelor of Technology, Computer Science and Engineering; Cumulative GPA: 9.15/10</i> <ul style="list-style-type: none">• 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.	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

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

Vellore, IN

- Engineered an AI-powered system that accurately recognizes vocal and facial expressions with an 82% success rate. Systems communicate back to users, analyze users emotions, and transmit data to the central gateway for optimization.
- Developed algorithms and performed data analysis on reviews to identify and present the most relevant information on the improved course accuracy by 50%

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

Vellore, IN

- 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.
- Engineered a web application that enabled users to receive customized recommendations based on individual interests and performance; boosted user engagement by 40%

VELLORE INSTITUTE OF TECHNOLOGY *Developer*

Vellore, IN

- Upgraded web portal from scratch with user experience and interface, minimized reading time by 40% and increased cut-point by 60%. Shifted from on-demand to the cloud.
- Designed a scalable full-stack web application using the MERN stack to support 2,000+ users; mobilized page load time by 50%.
- Streamlined certificate generator and transmission by creating and implementing a Python-based script; enhanced results by 40%, delivered using parallel algorithms to compute faster.

UNIVERSITY PROJECTS

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

2023

- 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

- 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 & IBM-AI Professional (Ongoing), AWS Cloud Practitioner, Microsoft Azure Fundamentals (AZ-900), Google Digital Marketing, Big Data – UCSanDiego, MATLAB (Fundamentals, Onramp, Programming Techniques), Salesforce Administrator, Hackerrank (Competitive Solving, Python)
- **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

Stimulated with Prof. Manikandan N, Prof. Ruby D.

2022

ABNORMAL FEATURE EXTRACTION FROM EEG OF SCHIZOPHRENIA PERSON WITH SWT

Handled with Prof. Gopinath MP and Prof. Aarthy SL.

2022