

# Chebrolu Sai Prasanna Abhinav

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## EDUCATION

2020-2024	<b>VELLORE INSTITUTE OF TECHNOLOGY</b> <i>Bachelor of Technology, Computer Science and Engineering; Cumulative GPA: 9.07/10</i> <ul style="list-style-type: none"><li>• <b>Awards:</b> Schneider Electric Scholarship.</li><li>• <b>Leadership:</b> Member Secretary, Student Council; Placements Co-Ordinator; Photography Club (Co-Secretary)</li><li>• Software Engineering; Operating Systems; Algorithms; Artificial Intelligence; Database Systems.</li></ul>	Vellore, IN
2020	<b>FIITJEE JUNIOR COLLEGE</b> <i>BIEAP - CGPA: 8.88/10.0.</i>	Vijayawada, IN
2018	<b>SRI CHAITANYA HIGH SCHOOL</b> <i>BSEAP - CGPA: 10.0/10.0.</i>	Addanki, IN

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## WORK EXPERIENCE

<b>AMBIENT-BASED SMART HOME WITH EMOTIONAL INTELLIGENCE</b> <i>Developer, Intern</i> <ul style="list-style-type: none"><li>• 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.</li><li>• Conducted data analysis on reviews and created algorithms to identify and present the most relevant information, resulting in a 50% improvement in course accuracy.</li></ul>	Vellore, IN
<b>LG CLOUD-BASED STREAMING PLATFORM</b> <i>Executioner (on behalf of the college)</i> <ul style="list-style-type: none"><li>• 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.</li><li>• Created a web application that increased user engagement by 40% by providing personalized recommendations based on individual interests and performance.</li></ul>	Vellore, IN
<b>VELLORE INSTITUTE OF TECHNOLOGY</b> <i>Developer</i> <ul style="list-style-type: none"><li>• 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.</li><li>• Designed a scalable full-stack web application using the MERN stack to support 2,000+ users; mobilized page load time by 50%.</li><li>• 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.</li></ul>	Vellore, IN

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## UNIVERSITY PROJECTS

<b>MULTI-ROUND SECURE AGGREGATION BY SOUND FOR SYSTEM CHECK USING FEDERATED LEARNING</b> <b>PROJECT   SOURCE CODE</b> <ul style="list-style-type: none"><li>• 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</li><li>• Researched modulation dots and signal processing techniques to optimize sound signal transmission to the central server, resulting in an 80% connection rate increase.</li><li>• Handled TensorFlow for transparency and described how data moves through a graph. The test accuracy is 76.92%</li></ul>	2023
<b>PERSONALIZED HOME SCREEN FOR GOOGLE CHROME   SOURCE CODE</b>	2023
<b>DEEP LEARNING BASED AUTOMATED IMAGE TRANSLATION FOR ANALYSIS AND DETECTION OF MALWARE IN REAL-TIME SYSTEMS – PROJECT   SOURCE CODE</b>	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

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### 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.

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### 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.

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### 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