

# CHARAN VENGATESH

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## EDUCATION

<b>The University of Texas at Austin</b>	Bachelor of Science in Computational Engineering Minor: Business, Elements of Computing Overall GPA: 3.54/4.00	May 2026
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## WORK EXPERIENCE

<b>Health Care Service Corporation   Blue Cross Blue Shield – Cybersecurity Engineering Intern;</b> Dallas, TX	June 2024 – Aug 2024
<ul style="list-style-type: none"><li>• Created Neo4j graph database to manage over 50 connections of user data, enabling effective tracking and analysis of information</li><li>• Organized 32+ knowledge processes from specialized InfoSec professionals and deployed on a restricted-access SharePoint site</li><li>• Acquired in-depth knowledge of CyberArk for privileged access management and syslogging methods for analyzing security events</li></ul>	
<b>EdWorldo – Front-End Software Developer;</b> Austin, TX	September 2022 - May 2023
<ul style="list-style-type: none"><li>• Developed a user-friendly and responsive front-end interface with React.js, which was enthusiastically adopted by 30 daily users</li><li>• Implemented React.js to expertly replace native HTML, which significantly improved the app performance and user experience</li><li>• Collaborated closely with back-end developers to ensure seamless API integration, thereby optimizing overall system functionality</li></ul>	
<b>Blue Tac IT – Cybersecurity and Marketing Intern;</b> McKinney, TX	July 2021 - June 2022
<ul style="list-style-type: none"><li>• Designed and executed 20 targeted marketing funnels and advertisements, resulting in a significant surge in client engagement</li><li>• Augmented marketing promotion of cybersecurity services by continually updating website and app content for better accuracy</li><li>• Formulated marketing measures and evaluated 50+ cybersecurity incidents to effectively navigate targeted strategy adjustments</li></ul>	

## ACADEMIC PROJECTS

<b>Texas Bus Schedule and Route Finder - TXBus</b>	January 2024
<ul style="list-style-type: none"><li>• Developed a user-friendly bus route finder application that consolidates bus schedules from over six different bus companies</li><li>• Implemented multithreading techniques to improve data processing speed, ensuring faster loading of bus routes and schedules</li><li>• Promoted the app within the college, resulting in practical use by over 40 students and receiving positive feedback for its utility</li></ul>	
<b>Wave Function Collapse Visualizer</b>	September 2023
<ul style="list-style-type: none"><li>• Programmed a C++ program to implement the Wave Function Collapse algorithm, enabling pattern-based procedural generation</li><li>• Efficiently managed memory allocation and utilized data structures to manipulate wave functions, ensuring optimal performance</li><li>• Spearheaded testing and optimization making algorithms suitable in achieving a 90% reduction runtime for real-time applications</li></ul>	
<b>Hand Gesture Recognition using Convolutional Neural Network</b>	August 2021
<ul style="list-style-type: none"><li>• Employed OpenCV and PyGame for efficient real-time video processing, that outputted a high-accuracy hand gesture detection</li><li>• Engineered and curated a custom dataset of 20,000 hand gesture images, ensuring data diversity and balanced representation</li><li>• Fine-tuned the CNN model with innovative custom layers, which ultimately achieved a 95% accuracy rate on the validation dataset</li></ul>	

## LEADERSHIP EXPERIENCE AND ACTIVITIES

<b>Texas Blockchain – TXB Lab Member;</b> Austin, TX	August 2023 – Present
<ul style="list-style-type: none"><li>• Accumulated practical experience with Layer 2 solutions like Plasma and effectively implemented the logic to improve scalability</li><li>• Designed projects using Hardhat and Drizzle frameworks, resulting in a significant 25% enhancement in development efficiency</li><li>• Showcased Blockchain Labs at multiple hackathons and tech conferences and presented and highlighted cutting-edge lab projects</li></ul>	
<b>Seva Charities – Volunteer;</b> Austin, TX	August 2023 – Present
<ul style="list-style-type: none"><li>• Volunteered to partake in monthly food drives and distributed essentials like canned goods to over 50 local families each event</li><li>• Utilized social media platforms to share upcoming events and success stories, contributing to an increase in online engagement</li><li>• Distributed 60+ flyers and promotional materials on campus, which effectively raised awareness about ongoing charity initiatives</li></ul>	

## ADDITIONAL INFORMATION

**Programming Languages:** Java, C/C++, HTML/CSS, JavaScript, TypeScript, Python, Golang, Swift, Dart, Solidity  
**Framworks:** React.js, Flutter, Express.js, Angular.js, Django, Flask, Hardhat, Drizzle  
**Developer Tools:** Git, VS Code, Postman, Docker, MongoDB, Firebase, Adobe XD, Figma, Remix.js, Prompt Engineering  
**Achievements:** 3-Time BPA State Champion, DECA State Finalist, NightCode Hackathon Winner  
**Certification:** IBM Data Science Professional Certificate