Chakri Thotakura

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Summary

Passionate and results-driven Computer Science undergraduate with a specialization in AI and Robotics. Proficient in full-stack development, AI/ML model deployment, and autonomous systems simulation. Demonstrated success through impactful internships and diverse projects including drone simulations, chatbots, and IoT solutions. Adept at solving complex problems, delivering scalable applications, and collaborating in agile environments. Actively seeking opportunities to apply cutting-edge technologies in real-world systems.

Education

Vellore Institute of Technology Chennai — Chennai ,Tamil Nadu
Bachelor of Technology in Computer Science and Engineering(AI and Robotics) — *Sept. 2022 – Present*
Current CGPA: 8.86/10

Tirumala Junior Kalasala — R.TALLAVALASA, Andhra Pradesh
Intermediate (MPC) — *July. 2020 – Apr 2022*
Final Score: 836/1000

Tirumala EM High School — R.TALLAVALASA, Andhra Pradesh
Secondary School Certificate(SSC) — *July 2019 – May 2020*
Final GPA: 10.0

Experience

Microsoft Azure AI-900 Intern — June 2024 – Aug 2024
EtrainIndia — *Chennai, Tamil Nadu*

- Designed and deployed AI solutions that reduced customer query response time by 30% and improved satisfaction by 15%.
- Analyzed customer feedback using AI tools, leading to product updates and a 25% drop in complaints.
- Improved model accuracy by 15% through fine-tuning and feature engineering.

MERN Full Stack Developer — Jun 2024 – Jul 2024
Ethnus — *Chennai, Tamil Nadu*

- Developed scalable MongoDB-backed applications supporting 10,000+ user records.
- Built 15+ React components to serve 20,000 monthly users with improved interactivity.
- Enhanced app performance by 20% through code refactoring and UI optimization.

Projects

AI Chatbot | *JavaScript, React| Personal Project* — Apr 2025

- Developed and deployed an interactive AI-powered chatbot at 22brs1317.github.io/chatbot, enabling real-time user engagement and instant query resolution for 500+ users.
- Integrated natural language processing algorithms to improve intent recognition, resulting in a 40% increase in response accuracy during user testing.
- Designed a modular React front-end for easy customization and future scalability.

E-Commerce Website | *MERN (MongoDB, Express, React, Node.js)| Personal Project* — Mar 2025

- Engineered a full-featured e-commerce platform with secure authentication, product catalog, shopping cart, and payment gateway integration.
- Implemented RESTful APIs and optimized MongoDB queries, ensuring seamless data flow and fast page loads for over 1,000 product listings.
- Enhanced user experience with responsive UI components and real-time order tracking, leading to a 30% increase in user retention during pilot testing.

Delivery Drone Simulation | *ROS Melodic, Gazebo| VIT Chennai* — Feb 2025

- Designed and simulated autonomous drone delivery missions using ROS Melodic and Gazebo, focusing on path planning, obstacle avoidance, and payload management.

- Developed custom ROS nodes for real-time sensor data processing and navigation, achieving reliable delivery route completion in complex simulated environments.
- Conducted iterative testing and performance analysis, optimizing drone control algorithms and reducing mission completion time by 25%.

Fitness Tracker | *React, Express, MongoDB* Jun 2024 – Jul 2024

- Built a full-stack fitness app with user login, workout logging, and progress tracking used by 3,000+ users.
- Improved onboarding by 30% and boosted app retention by 25% through seamless UI/UX.

Smart Locker System | *IoT, Microcontroller, Telegram API* Jan 2024 – May 2024

- Created a centralized notification system to alert users via Telegram upon locker access, used by 100+ users.
- Single-sensor design supports multiple safes; detects presence and triggers client-side alerts.

Enhancing Message Size Efficiency in Distributed Computing | *Open MPI* Jul 2023 – Dec 2023

- Improved processing speed by 40% via parallel computing with Open MPI across 50+ nodes.
- Used by 8 research teams for large-scale simulations, reducing communication latency.

Bone Fracture Detection Using CNN | *Python, CNN, ML* Jul 2023 – Dec 2023

- Trained CNN to classify 200+ X-ray images, saving 15 hours/week for radiologists.
- Reduced diagnosis time by 30% with an AI-assisted UI for real-time predictions.

Home Environment Monitoring System | *IoT, HTTP Server, Sensors* Jul 2023 – Dec 2023

- Built a microcontroller-based system to monitor and stream temperature, humidity, and air quality.
- Live data updates pushed to HTTP server every second with real-time logging and dashboard view.

Maze Solving Robot (Nav Bot) | *Raspberry Pi, Arduino, PID* Sept 2024– Dec 2024

- Built autonomous robot using IR/ultrasonic sensors and PID control to solve mazes 40% faster.
- Integrated simulation and real-world testing using Raspberry Pi and Arduino.

Technical Skills

Programming Languages: Java, Python, C, C++, SQL, MongoDB, JavaScript, HTML, CSS, R

Web & Backend Development: React, Bootstrap, Node.js, Express.js, WordPress

AI/ML & Data Science: Open MPI, TensorFlow, PyTorch, NumPy, Pandas

Developer Tools: Git, VS Code, PyCharm, Anaconda, Eclipse, Jupyter