

Pranav Madhu

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TECHNICAL SKILLS

Languages: Python, Java, C/C++, JavaScript, Typescript

DevOps, Version Control & Testing: Docker, Git, GitHub, Postman, Pytest

Frontend Web Technologies: HTML, CSS, React, Tailwind CSS

Backend Technologies & Databases: Flask, FastAPI, Node.js, REST APIs, PostgreSQL, SQLite, Oracle SQL

Development Practices: Object-Oriented Programming, Data Structures & Algorithms, Design Patterns

EDUCATION

Vellore Institute of Technology (VIT)

B.Tech in Computer Science Engineering (Specialization in Data Science)

CGPA: 9.20 / 10

Expected September 2026

Vellore, India

GEMS New Millennium School

Grade 12 (CBSE)

Percentage: 91%

June 2022

Dubai, UAE

WORK EXPERIENCE

Data Analyst Intern

Ozibook

May. 2025 – Aug 2025

Bengaluru, India

- Deployed Python and SQL scripts to automate extraction, summarization, and visualization of client data, creating dashboards that improved identification of key performance gaps and boosted decision-making accuracy by **25%**.
- Created multiple workflow automations using **n8n**, enhancing team coordination and enabling 5 project teams to meet deadlines consistently, increasing on-time delivery rate by **30%**.
- Developed data pipeline using Python, SQL, and R for real-time reporting on brand-building projects, helping increase **user engagement on client content by 15%**

PROJECTS

SecureBank (GitHub) | *Typescript, React, WebSockets, Docker, Redis, MongoDB*

Aug. 2025 – Present

- Engineered a **high-security, lightweight banking platform** utilizing Zero Trust principles and a custom model to detect anomalous activities which ensured security across all system layers and APIs.
- Designed and implemented a real-time Behavioral Biometrics Authentication module that analyzes **keystroke dynamics** for user verification, achieving **98.5%** accuracy in recognizing authorized users.
- Owned the development of an Anomaly Detection pipeline that utilized a **Random Forest model**, processing 1,000+ transactions/sec to identify **95%** of fraudulent patterns in live data.

ConvoStack (GitHub) | *C++, WebRTC, Vosk, React, Amazon S3, Gemini LLM, Nginx*

May. 2025 – Jul. 2025

- Developed a full-stack **video conferencing platform** with real-time transcription, note export, and Riverside.fm-style chunked media storage, boosting post-call review efficiency by **40%**.
- Architected a native C++ (Vosk) transcription engine for local Speech-to-Text, achieving **100% cost reduction** on core transcription APIs and **sub-100ms latency** for real-time performance.
- Integrated LLM-powered Q&A and smart note formatting on transcripts, enabling users to instantly extract action items, summaries, and decisions—cutting manual review time by **60%**.

PriceInsights (GitHub) | *React, Tailwind CSS, FastAPI, PostgreSQL, Docker, ML*

Nov. 2024 – Jan. 2025

- Architected a comprehensive **full-stack price tracking solution** that monitors product prices across 5+ e-commerce platforms including Blinkit, Zepto, and Amazon, **reducing user spending by up to 15%**.
- Engineered a scalable web scraping infrastructure and custom extraction logic, processing **10,000+ products** daily with a **99.2% success rate** while implementing rate limiting to ensure compliance with robots.txt.
- Utilized the time-series forecasting model Prophet to predict price fluctuations, achieving **87% accuracy** in identifying optimal purchase timing and potential savings opportunities.

EXTRACURRICULARS & CERTIFICATIONS

Courses & Certifications: Microsoft Azure Cloud AI-900, Udemy – Data Science and Machine Learning

Hackathons & CP: Finalist in the VIT TAM Hackathon ([AI Study app](#)), [Leetcode profile](#) with a 1500+ rating.

Leadership: Co-led an NGO club ([Uddeshya](#)) with 190+ members, organizing impactful events and initiatives.

Interests: Social Impact & Volunteering, Public speaking & Debating, Video Editing.