Viraj Tammana

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SUMMARY

B.Tech Computer Science student at SRM University - AP (CGPA: 8.62), with strong foundations in Data Structures & Algorithms, Full-Stack Development, and Machine Learning. Skilled in building scalable web applications, performing data-driven analysis, and applying ML techniques to solve real-world problems. Experienced with collaborative projects, UI/UX design, and research-based applications.

Demonstrated ability in Data Pre-processing, Visualization, and Model Preparation for machine learning workflows. Passionate about transforming complex data into actionable insights using Python-based ML libraries. Experienced with UI/UX tools such as Figma with a keen eye for intuitive and user-centric design.

PROJECTS/RESEARCH

Buxx 2025 - MERN + TypeScript using Vite
Built a secure, scalable accounting platform for Admins, Super Admins, Tax Authorities, and individuals to track financial activity, monitor tax compliance, and manage audit workflows. Features include role-based access, real-time alerts, and interdepartmental notifications via a clean, intuitive UI. **Tools**: MERN stack, TypeScript, Vite

Data Warehouse Advanced Analytics with SQL Server
Designed and built a full-scale data warehouse using SQL Server, which included ETL pipelines, schema/data modeling, exploratory data analysis (EDA), and advanced analytics. Cleaned and integrated multiple datasets, constructed fact and dimension tables, wrote T-SQL scripts for data transformations, and derived actionable insights via analytics queries. **Tools**: SQL Server, T-SQL scripts

Apple iPhone 15-Pro Recreation
Recreated Apple's iPhone Pro site using React, Vite, and GSAP to showcase modern web development practices.

Seed Grant Research on Automating Crop Insurance using Blockchain
Wrote and published a funded research paper to develop a prototype device that automates crop insurance payments using blockchain smart contracts integrating with real time weather data to ensure fast insurance payments for farmers. **Tools**: Blockchain smart contracts, Weather data integration

Quine-McCluskey Binary Classifier (QNBC) for Brain Tumor Detection
Developed a QNBC for brain tumor detection by integrating multiple machine learning models (Decision Tree, Random Forest, KNN, and Naïve Bayes). Applied the Quine-McCluskey logic simplification algorithm to optimize binary classifier outputs, which reduced redundancy and improved interpretability. **Tools**: Decision Tree, Random Forest, KNN, Naïve Bayes, Quine-McCluskey algorithm

Research on Movie Recommendation Systems
Developed a recommendation engine on a dataset of 10,000+ movie ratings. Implemented user-based and collaborative filtering techniques with cosine and Pearson similarity, achieving 15 percent higher accuracy compared to baseline popularity-based models, and contributed findings to a college research paper on recommendation algorithms.

EDUCATION

2022 – Present	B.Tech in Computer Science, **SRM University AP**	8.62
2020 – 2022	Class 12, **N120 Campus, Narayana College, Vijayawada**	96%
2020	Class 10, **St. Francis, ICSE, Machilipatnam**	93%

SKILLS

Programming Languages: Python, C++, C, Java

Web Full Stack Development: React, GSAP, TypeScript, Node.js, PHP, SQL, NoSQL, HTML, CSS, JavaScript

Machine Learning Data Science: Numpy, Pandas, Scikit-learn, Data Cleaning, Visualization, Basic ML Models

CS Fundamentals: Data Structures and Algorithms, Object-Oriented Programming (OOP), Operating Systems, Computer Networking

Tools Platforms: Git, GitHub, Figma, Canva

EXTERNAL CERTIFICATIONS

Certificate for completing Machine Learning for Engineering and science applications by NPTEL

Certificate for completing The Joy of Computing Using Python Course by NPTEL

Google Data Analytics Professional Certificate

EXTRA CURRICULAR ACTIVITIES

Co-Convenor, Arts, Culture and Literary Society, SRM UNIVERSITY AP, Present

Member, Events Wing, Student Council, SRM UNIVERSITY AP, Present

Member, Writers and Co Wing, Student Council, SRM UNIVERSITY AP, 2023 - 2024

Core Committee Member, Arts, Culture and Literary Society, SRM UNIVERSITY AP, 2023 -

Student Council Affiliate, SRM UNIVERSITY AP, 2022-2023