## **SHIVEN PATRO**

Department of Computer Science and Engineering Vellore Institute of Technology-AP

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## PROFESSIONAL SUMMARY

messages).

Aspiring Data Science Engineer with a strong academic foundation and experience in Web Development. Passionately leveraging AI & LLM models to gain expertise in Data Science, Machine Learning, and other software domains, including Cloud Computing and Web Technologies, to build web applications with simple solutions.

#### **PROJECTS**

• Hash Chat GITHUB March 2025

Developed a decentralized Ethereum chat dApp for secure P2P messaging using MetaMask.

- Achieved high throughput (est. 100+ messages/sec) and scalable on-chain storage (potential for 10,000+
- Realized significant gas savings (est. 75%) and high message delivery reliability (est. 93%).
- Implemented user registration, friend management, and real-time messaging via Solidity smart contracts.

Tools used: Solidity, React.js (Next.js), Ethers.js, Hardhat, MetaMask API (Encryption)

- IntelliApply GITHUB April 2025
  Engineered a full-stack AI-driven job application platform matching user profiles with opportunities.
  - Leveraged NLP (spaCy) for resume parsing (PDF/DOCX) and TF-IDF with Cosine Similarity for ranking, presenting top **50** matches.
  - Integrated automated web scraping (LinkedIn,Indeed,Hacker News) and used a Python/FastAPI backend with PostgreSQL (6 core tables) via Supabase.

**Tools used: Frontend:** React, TypeScript, Vite, TailwindCSS, React Router; **Backend:** Python, FastAPI, PostgreSQL, SQLAlchemy; **AI/ML:** scikit-learn, spaCy, TF-IDF; **Cloud/Infrastructure:** Supabase (Auth, DB Hosting), Docker; **Web Scraping:** BeautifulSoup4, Requests; **Development strategy:** CI/CD, Agile Methodology

• Wine Quality Prediction

**GITHUB** February 2025

Developed an ML model predicting red wine quality, achieving 87% accuracy and 0.83 F1-score on 1,599 samples using Gradient Boosting.

- Addressed 64% class imbalance with SMOTE, boosting recall from 0.71 to 0.85.
- o Identified alcohol content (0.32 importance) and volatile acidity (0.28 importance) as key predictors.

**Tools used: Languages:** Python; **Frameworks/Libraries:** Scikit-learn, Pandas, NumPy, Matplotlib, Seaborn, Imblearn; **Tools/Platforms:** Jupyter Notebook

• Personal Budget Tracker

**WEBSITE** September 2024

Built a responsive budget tracking app using React and Vite.

- Implemented transaction management, budget setting, Chart.js analytics, goal tracking, and LocalStorage persistence.
- Included multi-format data export (PDF reports, CSV) and enhanced UX with Framer Motion animations and theme toggling.

**Languages used:** JavaScript (JSX), HTML, CSS; **Frameworks/Libraries:** React, Vite, Tailwind CSS, Framer Motion, Chart.js, jsPDF

• E-Fashion Nexus

GITHUB April 2025

Constructed a full-featured e-commerce fashion platform using React, TypeScript, and Vite.

- Developed **10** core routes: product discovery, cart, checkout, auth, profile management with order history.
- Leveraged Supabase (auth/database) and TanStack Query for data fetching/caching.
- Ensured polished UI/UX with Shaden UI and Tailwind CSS.

**Languages used:** TypeScript, CSS; **Frameworks/Libraries:** React, Vite, Tailwind CSS, Shadon UI, Radix UI, TanStack Query, React Router, Zod; **Backend:** Supabase

Nagpur, Maharashtra

Dec 2024 - Jan 2025

# Cognifyz Technologies Web Development Intern

- Contributed to various web development projects, focusing on developing and integrating front-end and back-end technologies.
- Assisted in building scalable solutions utilizing skills in web development to meet organizational needs and ensure application stability.
- Internship Offer: [View Offer Letter]

#### **ACADEMIC DETAILS**

Degree / Examination	Institute	Year	CGPA / %age
BTech CSE Core	VIT-AP	2023-27	8.4/10 (first 2 sem)
Class 12 CHSE, Odisha Board	Saraswati Vidya Mandir	2020-22	83%
Class 10 ICSE Board	St. Vincent's Convent School	2008-20	95.8%

#### RELEVANT COURSEWORK

# **Core Subjects:**

Database Management System	Artificial Intelligence	Introduction to Machine Learning
Object-Oriented Programming (Java)	Software Engineering	Data Structures and Algorithms
Applied Statistics	Digital Logic Design	Computer Organisation and Architecture

#### **Certificates:**

- Coursera Foundations: Data, Data Everywhere (Coursera Certificate)
- Udemy Complete 2024 Web Development Bootcamp (Udemy Course Completion Certificate)
- Career Essentials in Generative AI by Microsoft and LinkedIn (Microsoft Certificate of Completion)
- JPMorgan Software Engineering Job Simulation (JPMorgan Certificate)
- Introduction to Transformer-Based Natural Language Processing (Nvidia Transformer NLP Certificate)
- Accelerating End-to-End Data Science Workflows (Nvidia Data Science Workflow Certificate)

# **SKILLS AND EXPERTISE**

- Programming Languages: Proficient: Java, Python, HTML5, JavaScript, SQL, R
- Data Science & Machine Learning: Python Libraries, R, Jupyter Notebook, Google Colab, Data Analysis, Data Visualization
- Artificial Intelligence: Google Colab, LLM APIs, API endpoints, MCP servers & Prompt Engineering
- Web Development: HTML5, CSS (Flexbox, Tailwind CSS), Bootstrap (Beginner), JavaScript, jQuery (Beginner), JSX, React.js, TypeScript, Express.js, Node.js, Web3, APIs
- Version Control & Collaboration Tools: Git, GitHub
- Document Preparation & Markup: LaTeX

# **ACADEMIC ACHIEVEMENTS**

- Zonal Finalist SIH (Smart India Hackathon) 2023
- Top 8 Technova National Hackathon at Coimbatore Institute of Technology