

UTTAM VERMA

Frontend Developer | Full Stack Developer | AI/ML Engineer
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PROFESSIONAL SUMMARY

B.Tech CSE (AI/ML) student with hands-on experience building production-ready full stack, frontend, and AI/ML applications. Proficient in JavaScript, React.js, Node.js, Express.js, Socket.io, Python, and Flask. Built and deployed real-world projects including a real-time chat application with WebSockets, an AI-powered sustainability platform, a URL shortener API, and polished responsive UIs. Seeking internship or entry-level roles in full stack, frontend, or AI/ML engineering.

TECHNICAL SKILLS

Languages:	JavaScript (ES6+), TypeScript, Python, HTML5, CSS3
Frontend:	React.js (v19), Vite, Tailwind CSS, Zustand, React Router, GSAP, ScrollTrigger, HeroUI
Backend:	Node.js, Express.js, Socket.io, Flask, REST API Development, JWT Authentication, WebSockets, Webhook Integration
AI / ML:	scikit-learn, pandas, NumPy, joblib, Predictive Modeling, Data Preprocessing
Database & ORM:	MongoDB, Mongoose, PostgreSQL, Drizzle ORM, SQLAlchemy
DevOps & Tools:	Docker, Git, GitHub, VS Code, ImageKit, Clerk (Auth), Zod, nanoid
Deployment:	Render, Vercel, GitHub Pages, Heroku

PROJECTS

Chat App – Real-Time One-to-One Messaging Application

React 19 · Node.js · Socket.io · MongoDB · Docker

[GitHub](#) | [Live Demo](#)

- Built a full stack real-time chat application with Socket.io WebSockets delivering instant one-to-one messaging, live typing indicators, and online/offline presence with last-seen timestamps.
- Integrated Clerk for authentication (email/password + Google OAuth) with a webhook-driven sync pipeline that mirrors Clerk user records into MongoDB via Express routes, ensuring the app queries a local database rather than hitting Clerk on every request.
- Implemented image and video sharing via ImageKit CDN (with automatic compression and transformation on delivery), theme presets, light/dark mode toggle, custom chat wallpapers, and sound notifications.
- Dockerized the entire application as a single multi-stage image — React frontend built as static assets served by the same Express server that handles the API and WebSocket connections — deployed on Render.

EcoPackAI – AI-Based Sustainable Packaging Recommendation System

Python · Flask · scikit-learn · PostgreSQL · JavaScript

[GitHub](#) | [Live Demo](#)

- Developed end-to-end AI web application to predict packaging cost and CO2 environmental impact using a scikit-learn ML pipeline with pandas and NumPy for data preprocessing and feature engineering.
- Built Flask REST API with recommendation, analytics, health-check, and report-export endpoints; managed relational data with PostgreSQL and SQLAlchemy ORM; serialized the trained model with joblib for production serving.
- Created interactive dashboard displaying CO2 reduction trends, cost savings analytics, and packaging usage statistics; implemented sustainability report export in PDF and Excel formats.

URL Shortener – RESTful URL Management API

Node.js · Express.js · PostgreSQL · Drizzle ORM · Docker

[GitHub](#)

- Built a scalable RESTful URL shortening API with Node.js and Express.js supporting random short-code generation (nanoid) and custom aliases, with fast redirection and complete URL management for authenticated users.
- Implemented JWT-based user authentication with bcrypt password hashing; enforced strict runtime request validation using Zod; used Drizzle ORM for type-safe, schema-driven PostgreSQL interactions.
- Containerized the PostgreSQL database with Docker Compose for consistent local development; structured the codebase into controllers, services, middleware, and validation layers for maintainability.

Samsung One UI – Inspired Responsive Website

React.js · Tailwind CSS · GSAP · ScrollTrigger · Vercel

[GitHub](#) | [Live Demo](#)

- Built a Samsung One UI-inspired responsive website with React.js and Tailwind CSS using component-based architecture, optimized for desktop, tablet, and mobile viewports.
- Implemented smooth scroll-triggered animations and transitions using GSAP and ScrollTrigger, delivering a polished and engaging user experience; deployed on Vercel.

Nike Landing Page Clone

HTML5 · CSS3 · JavaScript · GitHub Pages

[GitHub](#) | [Live Demo](#)

- Built a pixel-accurate Nike-inspired landing page with a fully responsive layout across all device sizes, demonstrating strong command of semantic HTML5 and modern CSS3.
- Deployed via GitHub Pages as a portfolio demonstration of core frontend development skills.

EXPERIENCE

Student Developer | Self-Directed Projects

2024 – Present

- Built and deployed 5+ production-ready full stack and frontend web applications using React.js, Node.js, Express.js, Socket.io, Flask, Python, JavaScript, and Tailwind CSS.
- Developed real-time features (WebSockets, live presence, typing indicators), third-party auth integrations (Clerk, JWT), media pipelines (ImageKit CDN, Multer), and ML-powered prediction engines deployed to live environments.
- Containerized applications with Docker and multi-stage Dockerfiles; managed REST API design, database schema migrations (Drizzle ORM), and full deployment pipelines across Render, Vercel, and GitHub Pages.
- Designed and consumed REST APIs connecting frontend interfaces with backend services; applied input validation (Zod), password hashing (bcrypt), and environment-based configuration across all projects.

EDUCATION

B.Tech — Computer Science & Engineering (AI/ML)

Expected 2028

Kashi Institute of Technology, Varanasi | Specialization: Artificial Intelligence & Machine Learning | 2nd Year

- Relevant Coursework: Data Structures & Algorithms, Object-Oriented Programming, Artificial Intelligence, Machine Learning, Web Development, Database Management Systems.

ADDITIONAL INFORMATION

Languages:	English, Hindi
Availability:	Open to internships, trainee roles, and entry-level opportunities
Interests:	Full Stack Engineering, Frontend Development, AI/ML, UI/UX Design, DevOps