UTKARSH GOEL

Full-Stack Developer | Software Engineer | Cloud & Automation

utkarshgoel.dev@gmail.com | Ghaziabad, UP | GitHub | Portfolio

TECHNICAL SKILLS

Languages: JavaScript (ES6+), TypeScript, Python, C/C++, SQL

Frontend: React.js, Next.js 14, Redux Toolkit, HTML5, CSS3, Tailwind CSS

Backend: Node.js, Express.js, RESTful APIs, WebSocket, JWT Authentication

Database: MongoDB (Mongoose ODM), SQLite, Database Design & Optimization

Cloud/DevOps: AWS, Vercel, Render, Docker basics, CI/CD, Git

AI/Tools: LLM Integration (Claude, Groq), Socket.io, FFmpeg, Multer, Winston

PROJECTS

Futures Trading Bot   *GitHub | Live on AWS*

Python, Binance API, CMA-ES Algorithm, SQLite, WebSocket, AWS

- Developed algorithmic trading bot achieving 60-70% win rates across 9 cryptocurrency pairs
- Implemented CMA-ES evolutionary optimization on 13 months of historical data for 14+ technical indicators
- Integrated real-time WebSocket connections for live market data and automated trade execution
- Built notification system using Telegram/Discord APIs; deployed on AWS EC2 with persistent sessions

Full-Stack YouTube Clone   *Live Demo | GitHub*

Next.js 14, TypeScript, Node.js, Express.js, MongoDB, Redux, Socket.io, FFmpeg

- Built feature-complete video platform with streaming, real-time comments, and subscription system
- Implemented JWT authentication with role-based access control and secure user management
- Developed custom HTML5 video player with FFmpeg integration for automatic thumbnail generation
- Deployed using microservices architecture - Frontend on Vercel, Backend on Render with MongoDB Atlas

AI-Powered Social Media Automation Bot   *Private Repository | In Production*

Node.js, TypeScript, Multiple AI APIs (Groq, Claude, Perplexity), SQLite, Node-cron

- Engineered intelligent content generation system using multiple LLMs with fallback chains for 99.9% uptime
- Implemented engagement algorithms scoring content virality with 10+ weighted parameters
- Built real-time market data integration with CoinGecko API and 1-minute caching optimization
- Developed rate limiting system with database tracking to manage API quotas across services

EDUCATION

Manipal University Jaipur   **Jaipur, Rajasthan**

Bachelor of Technology in Computer Science Engineering | 2023 - 2027 | CGPA: 7.68/10

KEY ACHIEVEMENTS

- Successfully deployed and maintained 3 production applications with real users and live data
- Achieved 60-70% win rates in algorithmic trading bot across 9 cryptocurrency pairs
- Built systems handling real-time data processing with WebSocket connections and API orchestration
- Demonstrated proficiency in full-stack development, from database design to UI/UX implementation
- Self-taught AI/LLM integration and implemented complex prompt engineering strategies

ADDITIONAL SKILLS

Development: RESTful API Design, MVC Architecture, Microservices, Real-time Systems, Performance Optimization

Professional: Problem Solving, Quick Learner, Debugging, Git/GitHub, Technical Documentation, Team Collaboration