

Vipul Yadav

+91-8077548713 | vipul.ydv01@gmail.com | linkedin.com/in/vipulydv | github.com/Vipul-Ydv | vipulyadav.vercel.app

EDUCATION

Bipin Tripathi Kumaon Institute of Technology, Dwarahat

Bachelor of Technology in Computer Science

2023 – 2027

Uttarakhand, India

EXPERIENCE

Frontend Developer Intern

Nov 2025 – Present

ColoredCow

India

- Collaborated with the engineering team to build components for a secure, blockchain-backed legal document platform using Next.js, TypeScript, and Tailwind CSS
- Resolved UI/UX inconsistencies identified during UAT, including fixing mobile layout overlaps to improve usability
- Optimized routing and middleware logic, removing dead code and orphaned translation files to reduce bundle size by ~15%
- Integrated API endpoints connecting frontend flows to smart contracts and automated PDF generation using a three-layer architecture pattern

Machine Learning Intern

June 2025 – July 2025

Tamizan Skills

India

- Built 4 end-to-end ML projects: BERT Emotion Analyzer, MNIST Digit Detection, Resume Matcher, and Pose Matching System using Python, Scikit-learn, PyTorch, and OpenCV
- Implemented complete ML workflows including data preprocessing, model training, hyperparameter tuning, and evaluation across classification and computer vision tasks

PROJECTS

Nishaan — **Decentralized Evidence Management System** | *Next.js, Solidity, Hardhat, IPFS, Ethers.js* Ongoing

- Built a Web3 evidence management system for law enforcement with cryptographically verifiable chain of custody on Ethereum
- Implemented IPFS file storage via Pinata with CID hash anchoring to a Solidity smart contract for tamper-proof integrity
- Designed role-based access control (Police, Court, Admin) enforced at the smart contract level using Solidity modifiers
- Maintained an immutable on-chain audit log of every evidence view, status change, and system interaction
- Built a cinematic frontend using Next.js 16, React Three Fiber (WebGL), and Framer Motion with responsive design

COPREPER — **AI-Powered Interview Prep Platform** | *Next.js, Node.js, Express, SQLite, JWT, OpenAI/Claude* 2025

- Built a full-stack knowledge management platform for CS students to document projects and prepare for interviews
- Implemented three-tier architecture with JWT auth, SQLite FTS5 for full-text search, and secure httpOnly cookie sessions
- Designed an Adapter Pattern for modular AI provider integration (OpenAI/Claude) with structured answer evaluation

BERT Emotion Analyzer | *Python, BERT, Transformers, Streamlit, Matplotlib*

2025

- Fine-tuned a BERT model (GoEmotions) for multi-label emotion detection across 28 emotion categories, filtering predictions at $\geq 10\%$ confidence threshold
- Built a text feature extraction pipeline analyzing 5+ linguistic signals (caps ratio, punctuation density, emoji usage, word repetition) for emotion-aware personalized suggestions
- Developed user profiling with session-based emotion history, breakdowns, and emotional insight tracking across conversations
- Shipped both a Streamlit web app (dark mode, pie charts, intensity heatmaps, CSV export) and a CLI version for terminal-based analysis

Real-Time Interview Confidence Estimation | *Python, OpenCV, MediaPipe, NumPy*

2025

- Built a computer vision system estimating interview confidence from posture, head orientation, gaze, and blink rate
- Designed a 6-dimensional feature vector with weighted confidence scoring and adaptive thresholding
- Provided live visual feedback with color-coded indicators and logged metrics for post-session analysis

Real-Time Pose Matching System | *Python, OpenCV, MediaPipe, NumPy*

2025

- Built a real-time pose comparison system using MediaPipe detecting 33 landmarks, extracting 12 key joints for matching
- Implemented hip-centering and shoulder-width scaling for distance/scale-invariant pose normalization
- Computed similarity scores (0.0–1.0) using normalized Euclidean distance with auto-capture on successful match

LEADERSHIP & ACTIVITIES

Innovation Cell Lead | *Bipin Tripathi Kumaon Institute of Technology*

2024 – Present

- Organized Smart India Hackathon (SIH) 2025 at the college level, managing logistics and participant coordination
- Coordinated the annual college coding fest and technical events, driving student participation across departments

TECHNICAL SKILLS

Languages: Python, JavaScript, TypeScript, C++, Solidity, SQL, HTML/CSS

ML/AI: PyTorch, Scikit-learn, Transformers (BERT), OpenCV, MediaPipe, NLP, Streamlit

Web & Web3: Next.js, React.js, Node.js, Express.js, Tailwind CSS, Ethers.js, Hardhat, IPFS/Pinata

Tools & Databases: Git/GitHub (400+ commits), MongoDB, SQLite, PostgreSQL, Postman, Vercel, Docker

CERTIFICATIONS

Postman API Fundamentals Student Expert