Piyush Patil

+91 94053 02470 | piyushpatil1741@gmail.com | linkedin.com/in/piyush-patil-2665a3251 | github.com/InverseXenon

Education

VES Institute of Technology — Mumbai, India
Bachelor of Technology in Artificial Intelligence and Data Science — *Nov. 2022 – Mar. 2026*

- CGPA: 8.55/10
- Relevant Coursework: Artificial Intelligence, Machine Learning, Data Structures and Algorithms, Database Management Systems, Web Development, Computer Vision, Cloud Computing, Deep Learning

Experience

Frontend Developer Intern — June 2025 – Present
IDMS Infotech — *Mumbai, India*

- Architected **Company Registration Form** with React.js featuring tabbed interface and validation, **reducing data entry time by 40%**
- Engineered **Minutes of Meeting application** with real-time audio streaming and transcription, **processing 100+ hours of audio data**

Project Development Intern — Jan. 2025 – Present
Panache Digilife — *Mumbai, India*

- Deployed **ESP32-based IoT air quality monitoring system** tracking **9 environmental metrics from 2 sensors** with **99.2% uptime**
- Accelerated Firebase database performance through strategic indexing, **reducing query response time by 15%** for 50+ concurrent users

Projects

Research Collaboration Hub | *React.js, Quill.js, WebSocket, Node.js, MongoDB, Clerk Auth* — Mar. 2025

- Constructed **real-time collaborative text editor** using Quill.js and WebSocket technology, **supporting 15+ simultaneous users**
- Implemented operational transformation algorithms for **conflict-free document synchronization**, **eliminating editing conflicts by 100%**
- Configured **secure authentication system** using Clerk OAuth with role-based permissions, **managing 30+ researcher accounts**

Women's Safety Application | *React.js, Leaflet.js, Node.js, Express.js, MongoDB* — Jan. 2025

- Crafted **location-based safety application** for Syrus Hackathon, **securing judge recognition** among 50+ competing teams
- Assembled **responsive user interface** with React.js using mobile-first design principles, **achieving 100% compatibility** across 12+ devices
- Integrated geolocation APIs with Leaflet.js for **real-time location tracking**, **decreasing emergency response time by 30%**

Deepfake Detection System | *Python, OpenCV, Keras, TensorFlow, React.js, Flask* — Jan. 2025

- Analyzed **800+ video frames** from FaceForensics++ dataset using OpenCV preprocessing techniques, **extracting 50+ facial features** per frame
- Delivered **end-to-end web application** with React.js frontend and Flask REST API backend, **processing 100+ video uploads** during testing
- Optimized **CNN-LSTM neural network** using TensorFlow framework, **achieving 85% detection accuracy** with **92% precision rate**

Technical Skills

Programming Languages: Python, JavaScript, Java, TypeScript, C, HTML5, CSS3, SQL
Frameworks & Libraries: React.js, Flask, Node.js, Express.js, TensorFlow, scikit-learn, OpenCV, Pandas, NumPy, Quill.js
Databases & Cloud Technologies: MongoDB, Firebase, MySQL, Amazon Web Services (AWS)
Development Tools: Git, GitHub, Visual Studio Code, WebSocket, REST APIs, Socket.IO

Achievements

1st Place - Awakening the Scientist 2023: First place winner for air purifier enhancement project demonstrating measurable environmental impact
1st Place - Deep Reads 2025: Winner of technical presentation competition showcasing PEGASUS model for automated text summarization
Top 5 Finalist - Hack-AI-Thon 2025: Developed AI-powered ERP system with Retrieval-Augmented Generation for intelligent data retrieval