VRUSHABH DEEPAK SHIRKE

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Results-driven Computer Science Engineer with experience in full-stack development, applied AI/ML, and robust database systems. Expert at building and deploying scalable, secure, and production-ready solutions. Passionate about translating complex data into actionable business insights using cutting-edge AI and visualization tools.

Work Experience

Internship

AI & Machine Learning Engineer Intern | Greenox Tech Private Limited | Hybrid *Jul 2025 – Dec 2025*
- Designed a complete data pipeline for 3,000+ image annotation and preprocessing, accelerating model training workflows by 40%.
- Developed a gantry robot computer vision model achieving 92% classification accuracy, validated on test datasets via cross-validation.
- Automated key stages of the ML lifecycle, reducing manual data handling by 50%.

Web Development Intern | S.I.E.S Graduate School of Technology | On-site *May 2024 - May 2025*
- Led end-to-end development of a MERN stack College ERP feedback module (serving 2,500+ students/100+ faculty); improved survey participation rates by 30% through UI/UX enhancements.
- Implemented secure JWT-based authentication and CI/CD pipelines, resulting in zero downtime deployments and hardened API endpoints.

App Developer Intern | WealthEra FinTech Pvt Limited | Hybrid *Jan 2025 - Apr 2025*
- Owned frontend delivery of an Android application built with React Native, integrating 15+ third-party APIs for features including real-time notifications and secure data fetching.
- Launched the app to production in less than 3 months, attaining >90% crash-free sessions based on Firebase analytics.

Skills

- **Languages:** JavaScript, TypeScript, Python, C++, C, SQL
- **Web & Mobile Development:** React.js, React Native, HTML5, CSS3, Tailwind CSS, Node.js, Express.js, REST APIs, JWT Authentication
- **AI/ML:** TensorFlow, Keras, OpenCV, PyTorch, Scikit-learn, Pandas, Computer Vision, Data Cleaning, Model Evaluation, Data Labeling
- **DataBases:** PostgreSQL, MongoDB, MySQL, Supabase
- **DevOps & Tools:** Git, Docker, GitHub, Postman, Power BI, Vercel, Render, Figma, Cursor
- **Others:** Agile, CI/CD, Cross-functional Collaboration, Communication, Project Management

Projects

- **AI Security System:** Developed and deployed a facial recognition and automatic number plate recognition system in Python using CNNs and OpenCV, providing real-time threat alerts with 87% detection accuracy. GitHub
- **Road Safety Analysis Dashboard:** Built an interactive Power BI dashboard analyzing 300,000+ road accident records; automated data cleaning in SQL and implemented custom KPIs for policy decision-makers. GitHub
- **GhostChat - Anonymous Real-time Chat Application:** Engineered Node.js, Socket.io backend with robust Dockerized infrastructure, supporting scalable WebSocket communication and one-command, containerized deployment; achieved sub-200ms message relay latency in benchmark tests. GitHub
- **Home Energy Monitoring System (HEMS):** Designed an IoT-based system using Arduino, Python, and MySQL to collect/analyze real-time household energy data, driving 18% cost savings via actionable usage insights. GitHub

Educational Background

B.E. Computer Engineering: SIES Graduate School of Technology, Nerul **2022-2026**
CGPA: 9.36 (Sem I–VI, 10-point grading scale, Top 5% of class)

Achievements & Hackathons

- **ENIGMA 3.0 WebVerse Hackathon 1st Runner-Up (2023):** Led team to deliver a privacy-centric web app emphasizing secure authentication and data management in a 48-hour sprint.
- **IDEATION by IETE 1st Runner-Up (2025):** Proposed an AI-powered plastic waste management system integrating smart sorting, blockchain rewards, and pyrolysis for waste-to-energy.

Leadership & Organizational Experience

- **Treasurer, Team Promethean (AY 2024–2025):** Managed budgeting and transparent fund allocation for major campus tech events.
- **Management & Outreach Coordinator, GDSC SIES GST (AY 2023–2024):** Strategized and executed 10+ tech workshops, boosting cross-campus tech engagement by 200+ participants.

Certifications & Courses

Deep Learning (Skill Development Program): Built CNN-based facial expression recognition models with full ETL and performance evaluation.

Cloud Computing (Value Added Course): AWS EC2, S3, IAM, with basic monitoring and security deployments.

IBM SkillsBuild (2024): Artificial Intelligence Fundamentals, Project Management Fundamentals.

AWS Educate (2024): Compute, Databases, Security, Serverless, Storage.