# 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

#### Al & Machine Learning Engineer Intern | Greenox Tech Private Limited | Hybrid

Jul 2025 - Present

- 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
- Al/ML: TensorFlow, Keras, OpenCV, PyTorch, Scikit-learn, Pandas, Computer Vision, Data Cleaning, Model Evaluation, Data Labeling
- DataBases: PostgreSQL, MongoDB, MySQL, Supabase, Power BI, Git, GitHub, Docker, Postman, Vercel, Render, Figma, Cursor
- DevOps & Tools: Git, Docker, GitHub Actions, Postman, Power Bl, Vercel, Render, Figma, Cursor
- Others: Agile, CI/CD, Cross-functional Collaboration, Communication, Project Management

## **Projects**

- Al 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.
- 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.
- 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
- 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.

## **Educational Background**

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

2022-2026

## **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.
- Smart India Hackathon 2023 & 2024: Contributed to developing scalable e-marketplaces, LLM-powered tools, and carbon footprint simulators with direct policy and user impact.
- · LLM Hackathon, IIT Bombay (2024): Rapid prototyping of LLM-integrated features for production use-cases.

## **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.