

# SURENDHAR E R

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## PROFESSIONAL SUMMARY

Motivated Computer Science student and Frontend Developer & Generative AI Engineer with hands-on experience building AI-powered applications in EdTech and healthcare domains. Skilled in React, REST/ FastAPI, RAG systems, and UI/UX design, with a strong focus on building scalable, user-centric, and production-ready solutions.

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## TECHNICAL SKILLS

- **Programming:** Python, Java, JavaScript
  - **Frontend:** React.js, Tailwind CSS, HTML, UI/UX Design
  - **Backend:** REST APIs, FastAPI
  - **Databases:** MySQL, MongoDB
  - **AI/GenAI:** LLM Integration, RAG Pipelines, Embeddings, Vector Search, Prompt Engineering
  - **Tools:** GitHub, n8n, Figma, Canva, Opal, Jupyter Notebook, Lovable, Sketch, Botpress, Cursor, Antigravity
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## PROFESSIONAL EXPERIENCE

### NRITUpSkills SoftwareSolutionsPVT. Ltd. (AI / EdTech Platform) – Frontend Developer & Generative AI Engineer | Dec 2025 - present

- Developed **AI-powered LMS features**, integrating Generative AI into the learning platform.
- Built **RAG-based systems** for AI question generation from text documents and video transcripts to ensure accurate, low-hallucination outputs.
- Designed **multi-agent AI workflows** for automated educational video generation.
- Implemented **Career Guidance & Psychometric Analysis module** using retrieval-based AI for personalized recommendations.
- Contributed to **frontend development, UI integration, and performance optimization** for scalable EdTech solutions.

### Prayana Electric – UI/UX Designer Intern (On-site) | Sep 2025 - Nov 2025

- Designed **web and mobile application interfaces** using a user-centered design approach.
- Created **wireframes, user flows, and high-fidelity UI designs** using Figma, Sketch, and Canva.
- Delivered **clean, consistent, and intuitive layouts** focused on usability and visual hierarchy.
- Prepared **design systems, prototypes, and assets** for smooth handoff to the development team.

### NOVI TECH R&D PVT LTD – UI/UX Intern (Remote) | Apr 2025 – May 2025

- Conducted **user research and requirement analysis** to understand product needs.
  - Designed **wireframes, low-fidelity and high-fidelity UI mockups** using industry-standard tools.
  - Developed **interactive prototypes** to demonstrate user journeys and workflows.
  - Created **modern, responsive UI layouts** following design principles, color theory, and typography.
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## EDUCATION

- **Vellore Institute of Technology – Andhra Pradesh** | Sep 2022 – Present M.Tech (Integrated) in CSE (in collaboration with Virtusa) | CGPA: 7.86
  - **SVN Matriculation Higher Secondary School** | Jun 2020 – May 2022
  - Higher Secondary (Computer Science) | 80%
  - **Nandha Matriculation Higher Secondary School** | Jun 2015 – May 2020
  - Secondary Education | 71.5%
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## PROJECTS & RESEARCH

### • Primary Author – Research Paper on Blockchain-Based Supply Chain

- Developed a blockchain-based agrifood supply chain platform with IoT (LoRaWAN, NB-IoT) for real-time monitoring, ensuring transparency, traceability, and tamper-proof data using Celo.
- Implemented AI models (TensorFlow, PyTorch) for price forecasting and plant disease classification, achieving ~92% accuracy and <3s system latency.
- Automated workflows with n8n to enable smart decision-making, notifications, and approvals, reaching ~98% operational success.
- UI/UX Designer & Frontend Developer for Blockchain-Based Supply Chain System

### • Conference Paper & Project: AI-driven UI Automation using Stitch

- NLU, UI Automation Contributed to AI-driven UI automation using NLU-based workflows and layout optimization techniques. Improved structured UI generation by addressing accessibility constraints and automated layout refinement

### • Project: AI-Powered Agriculture Chatbot using Botpress

- Botpress, NLP Built a chatbot using Botpress to assist users with agriculture-related queries and guidance. Enhanced intent handling and knowledge-based responses to improve answer accuracy and relevance

### • Project: Plant Disease Detection using Keras and TensorFlow

- Created a machine learning model using Keras and TensorFlow for image-based plant disease classification. Improved model performance through dataset tuning and evaluation optimization techniques.

### • Project: Blog Automation using Opal

- Built an automated content workflow to streamline blog publishing and content management processes.

### • Patent: Under Publication

### • Project: HeartCare – Heart Disease Patient Management System

- Built a full-stack Heart Disease Patient Management System with React, Node.js, and MongoDB, enabling CRUD operations, appointments, reports, and risk assessment.
- Implemented responsive UI and dashboard features for efficient patient data management and clinical insights.

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## CERTIFICATIONS

- Generative AI Certificate – HCL GUVI
- Oracle Generative AI Certificate (2025)
- UI/UX Designer – Novi Tech Pvt Ltd
- UX Certification – Georgia Tech University
- Basics of Blockchain – University at Buffalo
- Letter of Recommendation – Implementing and Writing Research Paper and Patent (Dr. Rajkumar Y.)

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## INTERESTS

- **Technical:** Frontend Development, Generative AI Engineering, Agentic AI, Machine Learning, DeepLearning, Databases
- **Non-Technical:** Research, Technical Writing, UI/UX Design, Software Architecture, Requirement Analysis