# J K Swaminathan

Full-stack web developer with hands-on experience in React, Node.js, and MongoDB. Passionate about building scalable, user-friendly applications and learning emerging frontend technologies.

## Contact

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- https://portfolio-swami-topaz.vercel.app/

## Academic Details

**Bachelor of Technology (B.Tech.) Electronics and Computer Engineering**
**Vellore Institute of Technology**, Chennai;
  06/2025 | CGPA: 8.29

**Sri Vageesha Vidhyashram** | Tiruchirappalli, Tamil Nadu
  **12th** | 04/2021 | 87%

**Suraj Bhan D.A.V Public School** | Delhi, New Delhi
  **10th** | 04/2019 | 89%

## Technical Skills

- **Programming Languages:**
  JavaScript, Python
- **Frontend:** React, Redux, Context API, HTML5, CSS3, Material UI
- **Backend:** Node.js, Express.js, MongoDB
- **Security:** OAuth 2.0, JWT
- **Tools:** Git, Postman, VS Code, Firebase
- **Learning:** Java, Spring Boot

## Soft Skills

Analytical | Collaborative | Adaptable | Problem Solver | Effective Communicator | Creative Thinker | Time Management

## Certificates

- C Language Training, IIT Bombay (Online)
- Python Language Training, IIT Bombay (Online)
- Cisco Packet Tracer Introduction.

## Profile Summary

- Built and deployed multiple MERN stack applications with AI features and cloud deployment.
- Proficient in core frontend technologies (HTML5, CSS3, JavaScript, React) with additional experience in Node.js, Express, and MongoDB.
- Completed internship at DRDO, contributing to simulation development and system design.
- Actively pursuing Meta Front-End Developer Certificate to strengthen React and UI skills.
- Strong communication, collaboration, and analytical problem-solving abilities.

## Academic Projects

**Military Asset Manager** (*May 2025*)
**Tools: MERN Stack**

- Developed a secure role-based asset tracking system using MERN stack, improving data access control and admin efficiency by ~40%.
- Designed and deployed REST APIs for CRUD operations with 99% uptime on Render and seamless MongoDB integration for scalability.
- Link to website: https://military-asset-manager-1.onrender.com/

**AI-Powered Waste Sorting Assistant** *(Jan 2025-April 2025)*
**Tools: React, Node.js, Express, MongoDB, TensorFlow, CUDA.**

- Built an AI-driven waste sorting system using TensorFlow, achieving over 92% classification accuracy and enabling real-time recycling insights.
- Developed and deployed a MERN-based dashboard for live visualization and automated waste management on Render.
- Link to website: https://waste-ui-1.onrender.com/

**AI Task Manager** *(Feb 2025-Mar 2025)*
**Tools: React (Vite), Node.js, Express.js, MongoDB, JWT Authentication, Render.**

- Created an AI-integrated task manager using Google Gemini API, delivering personalized productivity suggestions and secure JWT-based user access.
- Link to website: https://zocket-frontend.onrender.com/

**MemeVerse** (*Jan 2024 – Feb 2025*)
**Tools: React, Node.js, Express, MongoDB, JWT, Cloudinary.**

- Created an interactive meme-sharing platform with Cloudinary integration for image uploads, infinite scrolling, and secure user authentication.
- Link to website: https://memeverse-frontend.vercel.app/

## Internship

**Defense Research and Development Organization (DRDO) | Delhi, New Delhi**
**September 2023 – November 2023**

- Contributed to interactive defense simulation development using Unreal Engine. Designed 3D environments with Blueprints scripting, improving visual fidelity and project delivery time.
- Assisted in the design and implementation of 3D environments, ensuring high-quality visual and functional standards.
- Gained hands-on experience with Unreal Engine's Blueprints and scripting tools, contributing to successful project milestones.