

VAATHSALYA V

Full Stack Developer

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PROFESSIONAL SUMMARY

Software Engineer with expertise in full-stack development, data-driven applications, and system automation. Proficient in Python, JavaScript, React, Django, Flask, and SQL. Strong problem-solving skills with experience in machine learning and real-time monitoring systems. Proven ability to build scalable applications and optimize system performance.

TECHNICAL SKILLS

Programming Languages: Python, JavaScript, C++, Java, Go
Frontend Technologies: React.js, Tailwind CSS, HTML5, CSS, Web Design
Backend Frameworks: Django, Flask, FastAPI, Node.js, RESTful APIs
Databases: PostgreSQL, MySQL, Database Design, SQL Optimization
Development Tools: Git, GitHub, Visual Studio Code

PROFESSIONAL EXPERIENCE

Software Engineer Trainee

Tessolve Semiconductor Private Limited / Bangalore, Karnataka, India / November 2025 to Present

- Developed Python and Flask-based RAM monitoring system achieving 95 percent accuracy, reducing manual troubleshooting by 30 percent and improving system reliability for 20+ engineers
- Designed full-stack applications for system automation using React and Flask, reducing manual monitoring by 40 percent with automated error handling and dynamic dashboards

Software Engineer Intern

Tessolve Semiconductor Private Limited / Bangalore, Karnataka, India / February 2025 to October 2025

- Built production-ready chatbot using React and Flask handling 500+ queries daily, reducing response time by 40 percent and improving satisfaction by 25 percent
- Developed real-time debugger and web-based serial monitor improving debugging efficiency by 35 percent; created automated Arduino workflow streamlining development for 15+ engineers and reducing deployment time by 50 percent
- Designed internal dashboards and debugging tools improving productivity by 30 percent; collaborated with cross-functional teams using Agile methodologies

PROJECTS

Bus Reservation Management System

- Developed comprehensive full-stack reservation platform supporting 500+ passengers with admin operations dashboard, reducing booking errors by 20 percent and improving operational efficiency
- Implemented responsive frontend using HTML5, CSS3, JavaScript with PHP backend and MySQL database integration ensuring 99 percent uptime and secure transaction processing
- Built admin panel with user management, route management, and booking analytics features serving 50+ daily administrative operations

Chatbot Application with User Interface

- Architected intelligent chatbot system handling 1,000+ daily queries with predefined logic and natural language processing, improving query resolution speed by 45 percent
- Built responsive frontend using React, HTML5, CSS3, JavaScript; deployed as standalone web application and embeddable widget with 99 percent uptime
- Integrated Flask backend API with React frontend enabling real-time chat functionality and seamless user experience across desktop and mobile devices

RAM Monitoring System

- Engineered automated RAM monitoring tool with 95 percent accuracy featuring live refresh, historical data tracking, and alert notifications, reducing manual monitoring by 40 percent
- Integrated Python backend using Flask and FastAPI with React frontend for dynamic visualization, implementing error handling and graceful degradation
- Implemented real-time data visualization using charts and graphs, enabling system administrators to identify performance bottlenecks 50 percent faster

EDUCATION

Bachelor of Engineering in Information Science and Engineering
Sahyadri College of Engineering and Management

2021 to 2025
CGPA: 7.66

Pre-University College Science 12th Grade
Expert PU College

2019 to 2021
Percentage: 94.6 %