

SUDARSHAN K

SENIOR SOFTWARE ENGINEER

Phone: 78688 33460 | Email: codeer0@gmail.com | Location: Kuruthukuli, Ooty, Tamil Nadu

PROFESSIONAL SUMMARY

Results-driven Senior Software Engineer with 5+ years of experience across contract and project-based engagements, designing and deploying scalable, modular, enterprise-grade software solutions. Strong in Python full-stack development using FastAPI and Pydantic, React.js frontends, and cloud architecture on AWS. Hands-on experience building AI-powered systems including facial recognition, computer vision pipelines, and conversational chatbots. Currently exploring LLM integration and agentic AI workflows using LangChain, RAG pipelines, and vector databases as side projects. Proven track record in system design, microservices architecture, and delivering high-impact solutions across manufacturing, e-commerce, and real-time platforms.

WORK EXPERIENCE

Senior Full Stack Engineer (.NET)

June 2025 – May 2026

Aucust Inc. — Dubai, UAE (Client: CIPHERBIZZ) — Contract

- **Architected a high-performance Real-Time Auction Engine** using SignalR and .NET 8, supporting concurrent bidding with sub-100ms latency, live bid updates, and automatic auction state management across thousands of simultaneous users.
- **Built scalable Angular frontend** for the auction platform with dynamic dashboards, real-time bid tracking, and responsive UI components, integrating seamlessly with SignalR WebSocket events.
- **Designed a fully distributed cloud system on AWS** using ECR, ECS, EC2 Auto Scaling, SQS for event-driven messaging, SES for transactional emails, and ALB for zero-downtime deployments across multiple Availability Zones.
- **Developed and documented REST APIs** with strict API contracts, versioning, and security standards; standardised Architecture Decision Records (ADRs) across the engineering team.
- **Led sprint planning and technical grooming** sessions, translating business requirements into well-scoped engineering tasks; mentored junior engineers through code reviews and pair programming.

Technologies: .NET 8, SignalR, Angular, TypeScript, REST APIs, FastAPI, Pydantic, AWS (ECS, ECR, EC2, SQS, SES, ALB, CloudWatch, IAM, VPC), Docker, Terraform, PostgreSQL.

Software Developer Associate

November 2024 – April 2025

Booklet System — Contract

- **Built a Facial Recognition Login System** using Python and deep learning (DeepFace / OpenCV) to replace traditional password-based authentication, enabling secure biometric login for enterprise users.
- **Developed an intelligent Chatbot with Rasa** for customer support automation, handling FAQs, ticket creation, and context-aware conversations; integrated with backend APIs for live data responses.
- **Designed and implemented Angular-based frontend** for the customer portal, with reusable component architecture and seamless REST API integration for real-time data display.
- **Built scalable Microservices architecture** with secure REST APIs using FastAPI and Python, enabling modular deployment and independent scaling of each service.

Technologies: Python, FastAPI, Rasa, Angular, TypeScript, REST APIs, DeepFace, OpenCV, Microservices, Docker, Secure Authentication.

Full Stack Mobile and Website Developer

December 2023 – November 2024

SKM Animal Feeds and Foods — Contract

- **Designed and implemented ERP and e-commerce applications** with a scalable architecture handling inventory, orders, and supply chain workflows for a large-scale animal feeds enterprise.
- **Built an AI-powered vehicle number plate detection system** using Python and computer vision (OpenCV/YOLO) to automatically detect incoming vehicles and trigger barricade open/close, eliminating manual gate operations.
- **Developed React.js-based responsive UI** for the ERP dashboard with role-based access, dynamic data tables, and real-time status updates integrated via REST APIs.

- **Built a cross-platform e-commerce mobile app with Flutter**, enabling customers to browse products, place orders, and track deliveries with a smooth native experience on Android and iOS.

Technologies: .NET, MSSQL, React.js, Flutter, Python, OpenCV, YOLO, REST APIs, FastAPI, API Development.

Full Stack Website Developer

March 2023 – November 2023

Jay Jay Mills — Contract

- **Created a full-featured ERP system** with a well-structured database schema, scalable architecture, and an intuitive React.js UI for managing production, inventory, and operational workflows.
- **Built a raw material price prediction and inventory management module** using Python ML models (scikit-learn), helping procurement teams make data-driven buying decisions based on historical pricing trends, seasonal patterns, and trade data.
- **Developed fast and secure REST APIs** using .NET Core to connect the ERP frontend with backend services, ensuring reliable data flow and role-based access control across departments.

Technologies: .NET Framework & Core, MSSQL, React.js, Python, scikit-learn, REST APIs, FastAPI.

Full Stack Website & Network Engineer

September 2022 – February 2023

Indian Army

- Developed and secured an online campus system for students.
- Implemented network security measures and OS protection.

Technologies: PHP, MySQL, HTML, CSS, JavaScript, Cybersecurity.

Software Engineer (Freelance & Side Projects)

March 2020 – Present

Freelance Developer

- Built custom web and mobile applications based on client requirements.
- Developed AI/ML models and IoT solutions using Python, Arduino, and ESP32.
- **Currently building an Agentic AI side project** using LangChain and OpenAI APIs — a multi-agent workflow system that autonomously breaks down tasks, routes them to specialized agents, and synthesizes results; exploring RAG pipelines with vector databases (FAISS/Pinecone) for context-aware responses.

Technologies: Python, LangChain, OpenAI APIs, FastAPI, Pydantic, FAISS, Pinecone, Django, React.js, MongoDB, MySQL, Arduino, ESP32.

TECHNICAL SKILLS

Programming Languages: Python, JavaScript, .NET (C#), PHP

Web Technologies: React.js, Angular, Django, HTML, CSS, TypeScript, JavaScript, SignalR

API Development: REST APIs, FastAPI, Pydantic, Secure API Design, Event-Driven Architecture

AI / LLM & Agentic: LangChain, OpenAI APIs, RAG Pipelines, Vector DBs (FAISS, Pinecone), Rasa

Mobile Development: Flutter

Cloud & DevOps: AWS (ECS, ECR, EC2, SQS, SES, ALB, CloudWatch, IAM, VPC), Docker, Terraform

Databases: MSSQL, PostgreSQL, MongoDB, Oracle SQL, Supabase, MySQL

AI/ML & Computer Vision: TensorFlow, PyTorch, scikit-learn, OpenCV, YOLO, DeepFace

IoT: Arduino, ESP32

Architecture: Scalable Microservices, Distributed Systems, Real-Time Systems, System Design, ADRs

PROJECTS & CONTRIBUTIONS

- Real-Time Auction Engine – High-concurrency bidding platform with SignalR/.NET and AWS distributed backend.
- Distributed AWS System – Scalable microservices platform using ECS, ECR, SQS, SES, EC2, and Load Balancers.
- Face Recognition System – AI-based authentication for enhanced security.
- Microservice APIs – High-scale APIs for online education, doctor-patient, and marketplace platforms.
- Chatbot Development – AI-powered chatbot for customer interaction.
- ERP & E-commerce Solutions – Customized ERP and e-commerce applications.

- IoT Solutions – Smart automation projects using Arduino and ESP32.
- E-commerce App – Meat shopping app built with Flutter.

EDUCATION

Bachelor of Computer Application (BCA)

Hindustan College of Arts and Science — CGPA: 9.2 | 2019 – 2022

HSC

St. Joseph Higher Secondary School — 65% | 2016 – 2017

SSLC

St. Joseph Higher Secondary School — 72% | 2014 – 2015

SOFT SKILLS

Problem-solving & Analytical Thinking • Technical Leadership & Team Mentoring • System Architecture & Design Thinking • Strong Communication & Collaboration • Agile Development & Sprint Leadership • Quick Learner & Adaptability