

Monishwaran .C

Software Engineer

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WORK EXPERIENCE

Software Engineer

Bapon IT Services, Chennai, India

December 2024 – Present

- Developed and maintained multiple AI-powered applications: Hyr-Sense (AI interview platform), SenseScript (meeting transcription), HRSuite (timesheet management), SkillfulSense (skill assessment)
- Built 130+ RESTful API endpoints using FastAPI with Python, serving thousands of users
- Implemented cloud recording with Agora SDK, integrating AWS services for audio/video storage
- Designed microservices architecture using AWS Lambda, ECS Fargate, API Gateway
- Integrated payment gateways (Razorpay, Stripe) and authentication (AWS Cognito, Azure AD SSO)
- Achieved AWS Cloud Practitioner certification with 96.2% score

Senior Odoo Developer

Jetzerp Private Limited, Karaikudi, India

May 2023 – December 2024

- Led cross-functional team of 6 members (2 developers, 3 business analysts, 1 tester) delivering ERP solutions
- Developed custom Odoo modules for inventory management, purchase order automation, quality control
- Created automated data import systems using Zoho Books API with webhooks, reducing processing time by 80%
- Successfully migrated Odoo 14 to Odoo 17 Community edition with custom migration scripts
- Performed platform upgrades: Ubuntu 16 to Ubuntu 22, Python version management with pyenv
- Built FastAPI services integrated with mobile applications for real-time inventory tracking

Flutter Developer

Jetzerp Private Limited, Karaikudi, India

January 2023 – May 2023

- Developed mobile applications for automotive and manufacturing industries using Flutter
- Created Inventory Checker app with barcode scanning, integrated with Odoo ERP database
- Built Appraiser app for Autobuy (US car trading platform) with real-time lead tracking

KEY PROJECTS

SkillfulSense - AI-Powered Skill Assessment Platform

FastAPI, MongoDB, AWS Lambda, Agora SDK, OpenAI GPT-4, AWS Polly, Razorpay/Stripe

- Developed comprehensive skill assessment with MCQ tests, coding challenges, AI interviews
- Implemented real-time voice assistant using GPT-4o-realtime-preview with web search
- Built decoupled microservices architecture across 6 Lambda functions

HRSuite - Enterprise Timesheet Management System

FastAPI, PostgreSQL, SQLAlchemy, AWS Cognito, Azure AD, AWS SES

- Architected 90+ API endpoints: timesheet, leave management, attendance, RBAC modules
- Implemented SSO integration with organizational Azure Directory

Invoice Processing Automation - TI Murugappa Group

FastAPI, SQLAlchemy, OCR, Oracle Database, Python

- Developed intelligent invoice processing system reducing manual entry time by 90%
- Implemented OCR-based JSON parsing with ML pipeline for invoice type recognition

Pipe Diameter Optimization Tool (Live: opti.mklabs.work)

Python, Pandas, FastAPI, AWS Lambda, S3, Route 53

- Web-based optimization tool for water distribution pipeline design
- Automated iterative calculation process, achieving 80% optimization efficiency

EDUCATION

Bachelor of Engineering - Mechanical Engineering

ACGCET, Karaikudi
2019 – 2023
CGPA: 8.1/10

Higher Secondary Certificate (HSC)

SVS Mat Hr Sec School, Muthupet
2018 – 2019
Percentage: 85%

Secondary School Leaving Certificate (SSLC)

SVS Mat Hr Sec School, Chennai
2016 – 2017
Percentage: 97%

TECHNICAL SKILLS

Programming Languages

- **Python (Advanced)** - FastAPI, Django, Flask, SQLAlchemy, Pandas, Selenium
- **Dart/Flutter (Intermediate)** - Mobile app development, API integration
- **JavaScript (Intermediate)** - Frontend development, API integration
- **SQL (Advanced)** - PostgreSQL
- **NoSQL (Advanced)** - MongoDB queries and optimization

Frameworks & Technologies

- **Backend Development** - FastAPI, RESTful APIs, Microservices
- **ERP Systems** - Odoo (Community & Enterprise), Custom modules
- **AI/ML Integration** - OpenAI GPT-4, Whisper, Deepseek-chat
- **Mobile Development** - Flutter, Firebase integration
- **Payment Integration** - Razorpay, Stripe gateways

Business & Domain Knowledge

- **ERP Modules** - Sales, CRM, Manufacturing, Inventory, Accounting
- **Project Management** - Team leadership, cross-functional collaboration
- **Cost Optimization** - Infrastructure cost analysis strategies

Cloud & DevOps

- **AWS** - Lambda, EC2, S3, API Gateway, ECS Fargate, Cognito, SES, SNS, Polly, Transcribe
- **Database Management** - PostgreSQL, MongoDB, Oracle Database
- **Version Control** - Git, GitHub
- **Linux/Ubuntu** - Server admin, SSH, Nginx, systemd

Integration & APIs

- **Third-party Integrations** - Zoho Books, Agora SDK, Alison Platform, Azure AD
- **Authentication** - AWS Cognito, SSO, OAuth, Auth0
- **Real-time Communication** - WebRTC, voice/video calling, cloud recording

CERTIFICATIONS

AWS Cloud Practitioner - Score: 96.2% (2024)

ADDITIONAL PROJECTS

Genmo App - Generator Temperature Monitoring

Flutter, Firebase, IoT Sensors

- Collaborated with ECE student for IoT-based temperature monitoring
- Developed mobile app for real-time generator temperature data display

Quiz Competition App

Flutter, Firebase, Admin Panel

- Created quiz application for EEE symposium with interactive feedback
- Built admin panel for participant management and score evaluation

Python Automation Projects

Python, Tkinter, Turtle, Selenium, SMTP

- Snake & Pong Games, Spotify Billboard Scraper, Pomodoro Timer, Birthday Wisher