

# RAVI SHANKAR BJ AI Software Engineer

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## 👤 PROFESSIONAL SUMMARY

AI & Data Engineer with 1+ year of experience building production-grade machine learning pipelines, RAG-based search systems, and intelligent automation solutions. Expertise in Large Language Models (LLMs), natural language processing, and API development, delivering 70% efficiency gains and 90%+ accuracy in healthcare and customer service applications. Specialized in Python programming, semantic search, and scalable data engineering.

## 👜 PROFESSIONAL EXPERIENCE

### ExcelR Solutions

Data Science Trainee (AI VARIANT)

Jul 2023 – Jan 2024  
Bangalore

- Completed intensive training in machine learning algorithms, statistical analysis, model evaluation, and deployment strategies
- Gained expertise in supervised/unsupervised learning, regression, classification, clustering, and ensemble methods

### ZYPTR LABS PVT LTD

AI & Data Engineer

Oct 2024 – Feb 2026  
Bangalore

- Engineered scalable web scraping pipelines using Python, Selenium, and BeautifulSoup4, extracting 200,000+ healthcare provider records with 95% accuracy across multiple state databases
- Architected production-ready RAG search platform with vector embeddings and semantic algorithms, reducing patient-provider discovery time by 70% and achieving 85% retrieval accuracy
- Streamlined data quality workflows through LLM-based prompt engineering, cutting manual cleaning effort by 80% while maintaining integrity across multi-source datasets.
- Built RESTful AI chatbot using OpenAI GPT and FastAPI, processing 500+ daily queries with 92% accuracy and sub-2-second response time
- Optimized MongoDB query performance for real-time data storage, ensuring scalability for growing user base

## 🎓 EDUCATION

### Rao Bahadur Y Mahabaleswarappa Engineering College

Bachelor of Engineering in Electronics & Communication  
CGPA: 7.64/10

Jul 2023

## 🧠 TECHNICAL SKILLS

### Programming

Python, HTML5, CSS

### Data Engineering

ETL Pipelines, Web Scraping, Data Transformation

### Databases

MongoDB, Query Optimization

### Visualization

Matplotlib, Seaborn

### AI/ML

LLMs, RAG, Prompt Engineering, OpenAI API, Vector Embeddings, Semantic Search

### Frameworks

FastAPI, Django, BeautifulSoup4, Selenium, Pandas, NumPy

### Tools

VS Code, Jupyter, Streamlit, Postman

### APIs

Twilio, Telegram Bot, OCR

## KEY PROJECTS

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### **Hinkapin Healthcare - RAG Search Platform**

Architected intelligent healthcare provider search using RAG architecture, processing multi-state facility data with 85% retrieval accuracy

Created LLM-powered deduplication pipeline normalizing records through fuzzy matching, improving data quality by 65%

### **Twilio Voice IVR System**

Designed enterprise IVR automation with 5-stage intelligent routing, handling daily queries at 90% accuracy

Integrated MongoDB authentication with role-based access, reducing resolution time by 40%

### **Invoice Management Telegram Bot**

Launched end-to-end chatbot leveraging OCR and LLM APIs for financial data extraction from invoices with 88% classification accuracy

Automated expense categorization across 8 categories with interactive analytics dashboards

### **Movie Recommendation System**

Constructed content-based filtering engine processing IMDB records through ETL pipelines

Applied TF-IDF vectorization and cosine similarity for personalized recommendations, achieving 90% user satisfaction across 100+ active users

## CERTIFICATIONS

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**Data Science Certification:** ExcelR Solutions