

# Harish Kumar Samala

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## PROFESSIONAL SUMMARY

Python Developer with expertise in building scalable web applications, RESTful APIs, and AI-powered solutions. Proven track record in developing GenAI chatbots using OpenAI and Mistral LLMs, optimizing backend systems, and delivering full-stack applications. Strong foundation in machine learning, data processing with PySpark and Pandas, and cloud deployment. Experienced in CI/CD automation, performance optimization, and cross-functional collaboration to deliver high-quality software solutions.

## TECHNICAL SKILLS

**Languages:** Python, Java, SQL, TypeScript, JavaScript (ES6+)  
**Python Frameworks & Libraries:** Flask, SQLAlchemy, Pandas, NumPy, PySpark, Scikit-learn, TensorFlow, PyTorch  
**Web Development:** React, Spring Boot, RESTful APIs, HTML5, CSS, Tailwind CSS, Spring Data JPA (Hibernate)  
**AI & Machine Learning:** OpenAI APIs, Mistral LLMs, Generative AI, XGBoost, Embeddings, Semantic Caching  
**Databases:** MySQL, PostgreSQL, MongoDB, Oracle, SQL Query Optimization  
**Cloud & DevOps:** AWS, Azure, CI/CD (Jenkins, Azure Pipelines), Git (GitHub, Azure DevOps), Railway.app, Vercel  
**Automation & Testing:** Selenium, BeautifulSoup, Postman, JMeter, Nginx Configuration  
**Big Data:** PySpark, Large Dataset Processing, Data Transformation & Analysis

## PROFESSIONAL EXPERIENCE

<b>Python Developer</b> <i>Advanced Knowledge Technologies</i>	Remote <i>Present</i>
<ul style="list-style-type: none"><li>Designed and implemented a domain-specific GenAI chatbot using OpenAI and Mistral LLMs with embeddings, semantic caching, and advanced text cleaning techniques, improving response quality by 40% and reducing latency by 30%.</li><li>Built and optimized RESTful APIs with Flask and SQLAlchemy, enabling secure data exchange across internal systems and supporting 10,000+ daily API requests with 99.9% uptime.</li><li>Enhanced PDF onboarding pipelines to process complex documents containing tables and forms, increasing document processing accuracy by 35% and reducing manual review time by 50%.</li><li>Performed SQL-based data analysis on large datasets (1M+ records), implemented index tuning and query optimization, reducing average query execution time from 8 seconds to under 2 seconds.</li><li>Developed web scraping and automation solutions using Selenium and BeautifulSoup, extracting and processing 100,000+ data points weekly for business intelligence and reporting.</li><li>Utilized Pandas and NumPy for complex data transformation tasks, creating automated ETL pipelines that reduced data preparation time by 60%.</li><li>Conducted API load testing with JMeter, identified performance bottlenecks, and implemented optimizations that increased API throughput by 45%.</li><li>Configured and maintained Nginx as a reverse proxy and load balancer, improving application response times and enabling horizontal scaling.</li><li>Actively participated in code reviews, technical documentation, and CI/CD pipeline management in Azure DevOps, contributing to a 25% reduction in deployment-related issues.</li></ul>	

## TECHNICAL PROJECTS

<b>SparkleClean — Full-Stack Service Booking Platform</b>   <i>React, TypeScript, Spring Boot, MySQL, Git</i>	.
<ul style="list-style-type: none"><li>Developed production-ready full-stack web application with customer portal featuring multi-step booking forms, real-time appointment tracking, and QR code generation using qrcode.react and Web Share API.</li><li>Engineered secure admin dashboard with password-protected access, full CRUD operations, booking approval workflows, and dynamic credential management using React Context API.</li><li>Built Java Spring Boot backend with RESTful APIs, automated booking number generation, input validation, and MySQL database integration using Spring Data JPA (Hibernate).</li><li>Implemented mobile-first responsive design with Tailwind CSS, ensuring seamless user experience across all devices and screen sizes.</li><li>Deployed backend on Railway.app and frontend on Vercel with CI/CD integration, maintaining version control through Git and GitHub.</li></ul>	

**Superior Limousine LLC — Executive Transportation Website** | *TypeScript, Vite, Framer Motion, Vercel* .

- Designed and developed high-performance luxury transportation website using TypeScript and Vite, achieving 95+ PageSpeed Insights score through code splitting and lazy loading.
- Implemented mobile-first responsive design with fluid layouts, ensuring optimal viewing experience across desktops, tablets, and smartphones.
- Integrated Framer Motion for smooth animations and transitions, enhancing user engagement and creating premium brand experience.
- Optimized media delivery through Cloudinary CDN, reducing image load times by 70% while maintaining high visual quality.
- Applied SEO best practices and accessibility standards (WCAG), improving search engine visibility and usability for all users.
- Configured secure HTTPS deployment on Vercel with custom DNS setup via BigRock, ensuring reliable and secure web presence.

EDUCATION

<b>New Jersey Institute of Technology</b> <i>Master of Science in Computer Science</i>	Newark, New Jersey <i>Graduated May 2024</i>
<b>Siddhartha Institute of Technology</b> <i>Bachelor of Engineering in Computer Science</i>	Hyderabad, India <i>Graduated August 2021</i>

CERTIFICATIONS

AWS Certified Cloud Practitioner | Generative AI Foundations | Data Structures and Algorithms with Python