

KRUSHNAPPAN M

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Summary

Results-driven Senior Software Engineer with 3.5+ years of experience in delivering **scalable, production-ready AI/ML solutions**. Expertise in developing **intelligent systems** using **Python (Django, Flask, Fast API), Java (Spring Boot)**, and key ML frameworks like **RASA and LLMs**. Proven ability to design efficient APIs, leverage **cloud-native services (Azure/AWS)**, and integrate **ML-driven automation** (e.g., auto-tagging, predictive analytics) to enhance system reliability and deliver significant business impact. Known for clean coding, cross-functional collaboration, and implementing **Docker/Kubernetes** for robust, high-performance systems, along with network layer analysis and mail-flow optimization.

Skills

- Java
- Python
- Django
- Flask
- Fast API
- RASA
- PostgreSQL
- NLP
- Docker, Kubernetes
- MySQL
- Spring Boot
- Keycloak
- AI/ML
- AWS
- CI/CD
- Predictive Modelling
- Exchange Server/ Edge server
- Packet & Protocol Analysis
- Azure
- HTML
- CSS
- PyTorch
- Scikit-Learn
- Numpy
- Pandas
- Seaborn
- LLM/ Gen AI
- Git
- Linux
- Microservices architecture
- IoT
- RESTful APIs
- Backend development
- Django framework
- Networking (TCP/IP, DNS, SMTP, MAPI)

Experience

● 11/2022 - Current
LTIMindtree
Bengaluru, India

Senior Software Engineer

- Engineered **highly scalable, production-grade RESTful APIs** (Spring Boot, Django, Flask) to serve AI/ML models, improving backend throughput and **model inference latency by 40%**.
- Led development of **NLP-based chatbot and auto-tagging system** (Django, RASA, LLMs) that used **Python data science libraries (Pandas, Scikit-learn)** for model training and classification, resulting in **90% automation** and **75% faster ticket insights**.
- Developed **AI-driven time-series prediction APIs (Flask, NumPy, LSTM)** for anomaly detection, utilizing real-time monitoring data to **halve issue detection time** and improve system reliability.
- Delivered an **Intelligent Simulation Platform** backend (Spring Boot) that integrated **LLM scoring models (PyTorch/Scikit-learn model serving)** via scalable APIs, **reducing manual evaluation effort by 50%**.
- Managed end-to-end deployment of AI/ML microservices by implementing CI/CD pipelines and leveraging **Docker/Kubernetes** for container orchestration on **Azure and AWS (e.g., Sagemaker/ECS)**, ensuring a robust, **cloud-native scalable solution** across all production environments.
- **Maintained and enhanced** backend for Canvas Knowledge Fabric by fixing legacy issues and integrating new tech to support DevOps operations, including SOP-based incident mapping and generate actionable summaries insights.
- Conducted **business studies** on VR & Microsoft Mail Flow, shaping technology adoption and budget strategies.

- Collaborated with cross-functional teams and QA to ensure quality releases while optimizing system performance through **unit testing**, while actively **tracking emerging tech trends**.
- Analyzed Microsoft Outlook mail flow and underlying **network layers (TCP/IP, SMTP, DNS, MAPI)**, studying packet flow, protocol behavior and security. **Explored Exchange and Edge Server architecture** and DLL file level for faster mail delivery and network optimization.

07/2022 - 10/2022
LTI - L&T Infotech
Coimbatore, India

Graduate Engineering Trainee

- Gained hands-on experience in Python, Java, Django, Liferay, RDBMS, and frontend technologies through practical projects.
- Crafted an intuitive movie ticket booking platform, integrating seamless database management and a user-friendly UI.
- Enhanced soft skills and professional development, real IT challenges.

Education

01/2022
Calicut, India

B.Tech in Production Engineering

National Institute of Technology

GPA: 8.42/10

Projects and Research: Automatic segregation system in warehouse, ASRS

05/2018
Chennai, India

12th std in Mathematics and Computer Science

The Velammal International School

GPA: 91/100

Projects

- **Intelligent Simulation Platform (ISP)** | Jan 2024 – Jan 2025
Automated assessments using **LLM-based scoring and fine-tuning** with PyTorch. Optimized the API layer using **FastAPI** for high-speed model serving and deployed the platform using **Docker/Kubernetes** on Azure Cloud, **boosting grading speed by 50%**.
- **Canvas OPSight – Ticket Analysis Tool** | Nov 2022 – Dec 2023
Led **NLP/ML model development** for ticket classification, leveraging **RASA, LLMs, Scikit-learn, and Pandas** for data preprocessing and model training. Achieved **90% reduction in manual effort** and **75% higher response accuracy**.
- **Anomaly Detection System** | Feb 2023 – Nov 2023
Developed **time-series prediction models** using **Flask, Django, and NumPy/Seaborn** for analysis and visualization. Optimized the system for **low-latency detection, reducing downtime by 30%** via an **Azure-hosted scalable solution**.
- **Canvas Knowledge Fabric** | Jan 2025 – Present
Defect Advisor, integrating DevOps data (GitHub, Jira) using **Spring Boot/Python-based microservices**. Implemented **advanced similarity analysis (Scikit-learn/NumPy)** to correlate defects, user stories, and code artifacts, **reducing defect resolution time** and improving product quality.

Accomplishments

- **Best employee of the project, Canvas OPSight**, LTIMindtree, 05/01/23, Recognized for streamlining ticket analysis and data processing, improving user experience.
- **Spot Light Award**, 11/01/23, Delivered impactful client demos showcasing ticketing tool efficiency.
- **Best Transformed Employee**, LTIMindtree academy, 2022, Excelled in tech & soft skills at LTIMindtree Academy.
- **Academy Contributor**, 01/01/24, **Mentored 100+ students** in IT essentials and emerging technologies.

Certifications

- **Certified Java Developer** – GSSI Education
- **Python Programming Expert** – Edureka
- **Python Scripting Certification** – Edureka
- **Machine Learning Certification Training** – Edureka
- **Spring Boot Essentials (Trained Internally)** – LTIMindtree Internal Training