

TEJA NAIK

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AI/ML Engineer with hands-on experience in designing, training, and deploying scalable machine learning models using Python, TensorFlow, and Scikit-learn. Proven expertise in building end-to-end ML pipelines, model optimization, and production deployment using Django, Fast API, and RESTful APIs. Strong background in deep learning, natural language processing (NLP), large language models (LLMs), and computer vision. Experienced in developing healthcare AI applications that enhance automation, improve predictive accuracy, and drive measurable operational efficiency.

Skills

- Python
- Fast API
- Version control
- Object-oriented programming
- RESTful API Development
- Deep Learning, LLM
- Lang chain
- Vision-Language Model (VLM)
- Django
- AWS EC2, Lambda, S3
- Docker
- MYSQL, MongoDB
- Machine learning
- Natural Language Processing
- RAG (Retrieval-Augmented Generation)

Education

Ananthalakshmi Institute of Technology and Sciences at Anantapur B. TECH in Electrical and Electronics Engineering January 2019.

CERTIFICATION

- Python for Machine learning and Data Science – Certified by Simplilearn.
- Machine Learning– Certified by Simplilearn.
- Machine Learning – Certified by Coursera (Andrew Ng)
- Deep Learning - Certified by Simplilearn.
- Natural Language Processing - Certified by Simplilearn.
- IBM Artificial Intelligence Engineer Master Program – Certified by Simplilearn.
- Microsoft Copilot Studio.

Work history

AI/ML Engineer

Microline Information Systems Pvt Ltd, HYD

September 2024 – Current

- Designed and deployed **end-to-end healthcare AI pipelines** using **Machine Learning, Deep Learning, Python, TensorFlow/Keras, and Computer Vision** to enable scalable analysis of high-resolution **Whole Slide Images (WSIs)**.
- Developed and optimized **deep learning CNN models** for **nuclei detection and counting** using **YOLO, U-Net, and Mask R-CNN**, significantly reducing manual pathology workload and improving quantitative diagnostic accuracy.
- Built **Machine Learning and Deep Learning–based CNN classification models** to distinguish cancerous and non-cancerous tissue regions, delivering consistent performance across heterogeneous histopathology datasets.
- Implemented data augmentation, normalization, and class imbalance handling techniques to improve model robustness, generalization, and clinical reliability in medical image analysis.
- Engineered **WSI preprocessing and data pipelines** using **Python, OpenCV, and NumPy**, converting **raw .svs and .tif** slides into training-ready datasets for **machine learning and deep learning models**.
- Evaluated **healthcare AI models** using **Precision, Recall, F1-score, Accuracy, AUC-ROC, and Mean Average Precision (mAP)** to ensure robustness, reliability, and diagnostic validity.
- Generated **explainable AI (XAI) visualizations**, including **CNN heatmaps, segmentation masks, and overlay outputs**, using **Matplotlib** to enhance **model interpretability** and support pathologist review.
- Contributed to AI-driven solutions for medical image captioning and pathology case summarization, leveraging **Vision Transformers (ViT)** and **vision–language models** to improve clinical reporting clarity and efficiency.

Sr. Python Developer

Cherish HR Services Pvt Ltd, HYD

May 2024 - August 2024

- Developed and integrated **RESTful APIs** using **Fast API (Python)** to support scalable web applications, data processing, and model-driven services.
- Deployed and managed **cloud-native applications on AWS (Lambda, EC2, S3)**, enabling reliable backend services and support for **machine learning inference** where required.
- Designed and deployed **backend and web services** on cloud platforms using **Docker** for containerized, repeatable, and efficient deployments.
- Diagnosed and resolved **file system, data flow, and application issues** by analyzing logs and implementing corrective actions to maintain system stability.
- Collaborated closely with **frontend engineers, data/ML teams, designers, and QA** to ensure smooth integration and adherence to engineering best practices.
- Participated in **code reviews, sprint planning, and Agile ceremonies**, contributing to clean code, maintainability, and high delivery standards.
- Monitored and maintained **production applications**, addressing bugs, applying updates, and improving performance and reliability.
- Partnered with **technical leads and architects** to align on technical direction and deliver **scalable, robust backend solutions**.

Python Software Developer

Verity Technologies Pvt. Ltd., Bengaluru

December 2019 - April 2024

- Designed and developed a **Django-based e-commerce backend** with secure authentication and authorization, supporting scalable and data-driven workflows.
- Built and maintained **RESTful APIs** for **product catalog, cart management, and order processing**, with extensibility for personalization and analytics features.
- Integrated multiple **payment gateways** including **Stripe, PayPal**, and UAE-specific providers (**Telr, Pay Tabs, Amazon Payment Services, Network International**), ensuring secure, compliant transactions.
- Implemented **order lifecycle workflows** including payment capture, webhook handling, and signature verification to ensure transaction integrity and reliability.
- Optimized **database queries and data models** using **Django ORM**, improving performance, scalability, and readiness for ranking or recommendation logic.
- Implemented **search and filtering functionality** for products, supporting relevance-based results and future **ML-driven enhancements**.
- Configured **Celery and Redis** for asynchronous processing such as order confirmations, inventory updates, and background jobs.
- Deployed and maintained the application using **Docker and AWS EC2**, ensuring high availability, scalability, and production stability.

Languages

English



Telugu



Hindi

