

Krunal Shambharkar

Machine Learning Engineer

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Skills

Languages: Python, Java

Technologies & Tools: MLOps, Scikit-learn, MLflow, Hopsworks, Github Actions, Docker, Streamlit, Jira

Education

Oxford Machine Learning Summer School Certificate July 2024
in-person Course, Organized by AI for Global Goals at University of Oxford (UK)

B.E. in Information Technology June 2017
Rajiv Gandhi College of Engineering and Research, Nagpur, RTM Nagpur University Nagpur

Work Experience

Aerizone Creative Labs. Pvt. Ltd. (Nagpur)

AI ML, Solution Engineer Jan 2024 - Present

- **GeoAI Land Classifier:** Developed the end to end web app to enhance GIS software with generative AI capabilities using Google Gemini Pro Vision, processing satellite images for contextual responses.
- Integrated Bing Maps APIs for real-time satellite image retrieval, improving data processing efficiency by 65% and increasing user engagement by 80%.
- Enhanced overall project impact by reducing manual classification time by 78% and improving accuracy of land classification in GIS applications by 60%.
- Gen-AI Gemini Pro Vision, Python, Streamlit, Github, Docker, FastAPI

Digitate- A venture of Tata Consultancy Services (Pune)

AI ML, Solution Engineer Jan 2021 - May 2023

Client: ASML, Netherlands, Europe

- **Wafers (Sensor) Quality Classifier:** Spearheaded the development and deployment of a comprehensive MLOps pipeline, covering data preprocessing (ETL), model training, evaluation, and deployment. This led to a 15% increase in predictive accuracy and a 20% boost in operational efficiency, significantly enhancing production output and reducing downtime.
- **Data Management & ML Modeling:** Utilized Hopsworks for data versioning and integrity, reducing data-related errors by 91%. Applied XGBoost's XGBClassifier to develop a robust classification model for sensor quality distinction.
- **Automation & Deployment:** Optimized the ML workflow using GitHub Actions and Docker, reducing deployment times by 30%. Built a RESTful API with FastAPI for scalable model integration and deployed an interactive prototype using Streamlit, which increased user engagement by 25%.
- Python, Poetry, Apache Airflow, Hopsworks, XGBClassifier, Github Actions, Docker, FastAPI

AI ML, Engineer June 2019 - Dec 2020

Client: Multiple Clients in Europe, US, Canada

- **What-If Analysis:** Spearheaded the development of ai.workload Management, a machine learning tool for forecasting server loads during peak IT events, leveraging XGBoost for enhanced predictive accuracy.
- Orchestrated a Python-based data pipeline, achieving a 30% increase in efficiency for data processing stages from ingestion to evaluation.
- Leveraged Docker for environment consistency and deployed the application on AWS, utilizing GitHub Actions for automated CI/CD workflows, significantly enhancing deployment efficiency and reducing deployment time by 25%.
- Managed the project life-cycle on GitHub, leading to a 20% improvement in operational cost efficiency and a 15% increase in system reliability.
- Python, MLFlow, XGBoost, Github Actions, Conda, Docker, AWS EC2

Client: Internal

- **Developed Automated Defect Management in Jira:** Engineered a utility for the autonomous creation and raising of defects in Atlassian Jira, streamlining the issue tracking process and enhancing operational efficiency.
- **Integration and Automation Expertise:** Demonstrated proficiency in integrating AI with Jira to automate defect reporting, significantly reducing manual effort and accelerating response times for issue resolution.
- Python, Flask, Jira API

Awards and Certificates

- **Service and Commitment Award:** Recognized for dedicated service and unwavering commitment to company goals, demonstrating exceptional dedication and work ethic.
- **Special Initiative Award:** Received for developing and executing a comprehensive event that brought together diverse teams to display their work, boosting morale and inter-team synergy.
- **LLMops** Certification from Udacity.
- **AI For Everyone** Certification from Coursera.
- **Machine Learning** Certification from Kaggle.