Mukul Kirti Verma

Team Lead - Sr. Data Scientist | 7 Years of Experience in AI
Contact: +91-9452057765 / mukulkirtiverma@gmail.com
[LinkedIn](#), [Git](#), [Kaggle](#)

Results-driven Data Scientist with approx 7 years of experience in Managing, developing and deploying enterprise-scale machine learning solutions. Specialized in MLOPs, NLP, computer vision, and generative AI, with a proven track record of leading technical teams and delivering projects that drive significant business value. Expert in end-to-end ML pipelines, from model development to production deployment on cloud platforms.

Professional Experience

Team Lead - Sr. Data Scientist

Inonetecx Inc. Canada (remote) **|** August 2024 - Present
- Led a cross-functional AI team, implementing **agile practices** to improve efficiency by **30%**. Deployed AI solutions using LLms, GenAi & GANs, boosting key business metrics by **20%** and efficiency by **30%**.

Sr. AI Engineer

Universal Media Holding Corporation (MNC Group- Gurugram) **|** November 2022 - January 2024 (1.3 years)
- Led AI team in product architecture, development, MLOps-driven CI/CD, cutting deployment time & cost by **60%**. Managed client interactions, business alignment, and project execution for seamless delivery.

Sr. ML Engineer / ML Engineer / ML Intern

Scimox Product & Services Pvt Ltd (Gurugram / Lucknow) **|** July 2017 - October 2022 (5.3 years)
- Architect AI-powered products, reducing **manual processing time** for multiple projects by **40%**. Designed and implemented scalable ML pipelines for production deployment.

Education

- M.Tech in Computer Science | **IIT Dhanbad, 2016 to 2018**
- B.Tech in Information Technology | BBDNITM, Lucknow (GBTU), 2008 to **2012**

Technical Skills

- **Programming:** Python, HTML, CSS, JavaScript, Gremlin, C++ (Hands -On)
- **AI/ML:** TensorFlow,Keras, Scikit-Learn, GANs, Diffusion Models, Stable Diffusion.
- **Generative AI:** LLMs, Transformers, Stable Diffusion, Gpt, Prompt Engineering, Lama-3, Agenting .
- **NLP:** NLTK, SpaCy, Hugging Face, BERT, GPT, web scraping, text mining.
- **Computer Vision:** OpenCV, YOLO, CNN, Image Processing
- **Data Visualization & Big Data:** PySpark, Dask, NumPy, Pandas, Matplotlib, Seaborn, Scikit-Learn.
- **Cloud & MLOps:** AWS, Azure, GCP, Docker, Kubernetes, CI/CD, GitHub, GitLab, Jenkins, Prometheus.
- **Software Development:** Flask, Tkinter, CX-Freeze, Fast API, Celery, RabbitMQ.
- **Testing:** Jmeter, Selenium, Sonarqube, Postman, SonarQube.
- **Databases:** MySQL, SQLite, MongoDB, Google Analytics, Neptune, Vector database (pinecone)
- **Tools & OS:** Anaconda, Jupyter, VS Code, PyCharm, Spyder, Matlab, Photoshop, Windows, Linux

Publications

- "CBVoSD: Context Based Vectors Over Sentiment Domain Ensemble Model for Review Classification" - **The Journal of Supercomputing (2022) |** [check here](#)
- "Dimensionality Reduction Technique on SIFT Feature Vector for Content-Based Image Retrieval" - **Springer (2019) |** [check here](#)
- "Enhanced PCOS Detection Using Modified ResNet Architecture" - In preparation for Journal of Medical Imaging (SPIE)

Certifications

- Machine Learning (Stanford University - Andrew Ng)
- Azure Fundamentals (AZ-900)
- Python Data Structures (University of Michigan)
- Complete Generative AI Course With Langchain and Hugging face
- Master LangChain & Gen AI -Build AI Apps HuggingFace LLM
- 20+ certification from Coursera & Udemy

Achievements

- **All India Winner** - PCOS Classification challenge conducted by IGDTU & Misahub **(IEEE-sponsored)** | check
- Qualified **GATE** examinations (2012, 2013, 2016)
- Qualified **CEED** 2014-15

Key Projects

NP Algo Trades:- Automated Trading Platform | check here
Role: Solo Project
Technology Stack: *Python, Flask, Tkinter, REST APIs, WebSocket, SQLite, CX-Freeze, Inno, Cython, Generative AI*

- Developed an advanced algorithmic trading platform with Gen AI-powered risk management, trailing stop-loss, and automated strategy execution (many more Features), **improving trade success rate by 23%**.
- Integrated ChartLink alerts live execution, P&L monitoring & comprehensive performance analytics.

IntelliBot WP :– RAG based AI-Powered Chatbot for WordPress | Under Development
Role: *Project Lead, Gen Ai Engineer, Backend Developer, Frontend Developer, Tester*
Technology Stack:*Prompt Engineering, Pinecone , REST APIs, WordPress, MySQL, Docker, Deepseek, Lama-2.7*

- Designed Generative AI, RAG-based (Deepseek) chatbot with CoT reasoning.
- Built WordPress plugin for real-time content retrieval using REST APIs, Sentence-BERT, and Faiss

Lurnify – AI-Powered Learning Management System | check here
Role: Project Lead & Backend Developer
Technology Stack: Python, Flask, Docker, AWS, GitLab, Postman, SQL

- Built an optimized LMS with Admin, Teacher, Student, and Parent modules, enhancing user interaction and content management.
- Integrated real-time analytics for student progress, enabling data-driven decisions, improving learning outcomes, and increasing user engagement, boosting **business growth**(digital aspects) by approx **30%**.

Motion Trade :- Gen AI based Stock Recommendation system & Stock RoboAdvisor chatbot| check here
Role: *Tech Team lead, AI Engg., Backend, Devops Engineer & Financial Analytics Lead*
Technology Stack: *Python, scikit-learn, VsFTP Server, Docker, Kubernetes, Flask, Technical Analysis Lib*

- Achieved **65-70% win-loss ratio** in stock trend prediction using ensemble of LSTMs, GRUs, and Lasso with systematic back-testing & model versioning. Gen AI chatbot for real-time stock queries.
- Automated analysis of **900+** stocks daily, significantly reducing 80% manual workload. Hence help to **reduce human resource cost** by **80%.**

RCTI+ : – AI-Powered Recommendation Engine with Graph Database for OTT platform | check here
Role: Lead AI Engineer & Recommendation Systems Specialist
Technology Stack: Python, AWS Neptune, TensorFlow, Scikit-Learn, Flask, Data Pipelines, *, celery, Rabbit Mq*

- Developed an AI-driven recommendation engine for an Indonesian OTT platform, optimizing content discovery to maximize **viewing time** and **platform engagement** by **23% in just 3 months** .
- Integrated ensemble techniques to combine rule-based and AI-driven models for superior content recommendations. Increase 'no pay-tv' user conversion to 'pay-tv users' by 15 % in 3 months.

Motion Pay KTP KYC module :- KTP OCR and Passive Selfie Anti-Spoofing | [check here](#)
Role: Technical Team Lead & Computer Vision Specialist, Backend developer
Technology Stack: *PyTorch, OpenCV, YOLOv8, MediaPipe, Fastai, Flask, AWS S3, Docker, Redis*

- Implemented OCR for ID documents with **75% accuracy** ,Led 6-member team in developing end-to-end eKYC solution. Achieved **90% accuracy** in **selfie anti-spoofing system** using 8,000-image dataset
- Automated KYC cuts verification time to minutes, reduces fraud by 40-60%, and lowers costs by **$5-10** per user, boosting conversions by **30-50%**.

AutoThumb AI : – Intelligent Video Thumbnail Generator | [check here](#)
Role: Technical Lead & Computer Vision Engineer, Backend Developer
Technology Stack: *Python, DeepFace, MediaPipe, YOLO, OpenCV, Tkinter, CX-Freeze, Inno*

- Developed user-friendly executable application using Tkinter for streamlined operations & AI-driven system for automated thumbnail generation from video content
- Automated thumbnails cut manual effort by **80% for 8,000+ videos**. AI-driven optimization boosted CTR by **20-30%,** increasing engagement and **ad/streaming revenue**.

Vision Plus:- Video Recommendation Engine | [check here](#)
Role: *Senior ML Engineer , Backend developer, Tester*
Technology Stack: *AWS (S3, Neptune DB, Redis), Flask, , celery, Rabbit Mq, scikit-learn, Docker, Kubernetes*

- Developed a hybrid video recommendation system using content-based and collaborative filtering for personalized recommendations.
- Improved recommendations boosted watch time by **20-40%**, increasing ad revenue and subscription conversions by **10-25%**, driving higher **ARPU** (Average Revenue Per User).

Okezone:- News Recommendation & UGC System | [check here](#)
Role: *Lead AI Engineer & System Architect, Tester*
Technology Stack: *Python, AWS (S3) Redis, Docker, Kubernetes, FastAPI, SVD++, scikit-learn, , celery, Rabbit Mq*

- Built an AI-powered news recomm. system, enhancing user retention with personalized content delivery.
- Automated content moderation & classification, reducing manual effort by **80%** & cutting costs by **70-80%**.