## **KEVAL SING SAUD**

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#### SUMMARY

Master of Science candidate in Computer Science with 1+ years of professional experience in Python development, automation, and machine learning. Demonstrated expertise in building scalable AI systems, leveraging LLMs, RAG frameworks, and containerized deployments. Seeking ML/DS or Python Developer roles at top tech companies.

#### **EDUCATION**

Master of Science in Computer Science, University of Mumbai Auq~2023

Mumbai, India Aug 2025 (Expected) Mumbai, India Mar 2021

Bachelor of Science in Computer Science, University of Mumbai  $Jan\ 2018$ 

#### TECHNICAL SKILLS

- Programming Languages: Python, SQL, JavaScript
- Machine Learning / AI: TensorFlow, PyTorch, Scikit-learn, LLMs, RAG, Diffusion Models, XAI
- Data & Storage: Pandas, NumPy, MongoDB, MySQL, Redis, Qdrant, HBase
- Web & Backend: Django, Flask, Streamlit, Gradio
- DevOps & Tools: Docker, Git, GitLab CI/CD, Jupyter, Anaconda
- Visualization: Matplotlib, Plotly, Power BI, Tableau

#### PROFESSIONAL EXPERIENCE

# Junior Software Developer, SquareYards May 2022

Mumbai, India Jun 2023

- Developed a scalable web mining application using Python, Requests, and Selenium to automate HTTP
  flows (CSRF tokens, login, OTP, CAPTCHA), enabling concurrent data scraping across multiple
  endpoints. Designed robust data pipelines and stored high-volume web data in MongoDB and PostgreSQL
  for structured access and analytics.
- Fine-tuned Stable Diffusion models using LoRA on custom datasets, improving image generation quality by 25% for marketing use cases.
- Built a conversational AI chatbot by integrating CSV-based agents and vector databases.
- Engineered RAG-based LLM services using LangChain, Streamlit, and Flask/Django; deployed GPT-3 powered applications for real-time search and content generation.
- Tech stack: Python, LangChain, Selenium, Streamlit, Flask, Django, MongoDB, PostgreSQL, LoRA, Stable Diffusion.

# Research Intern, University of Mumbai (Physics Dept.) Mar 2024

Mumbai, India May 2024

- Automated retrieval and visualization of NASA ICME time-series data, improving analysis turnaround by 50%.
- Designed and deployed interactive dashboards in Streamlit and Gradio, enabling real-time data exploration.
- Implemented ETL pipelines for physics experiment data, increasing data accuracy by 30%.

#### **PROJECTS**

#### Full-Stack MedicLLM: AI Assistant for Psychiatric Diseases

Apr 2024 – Present

- Engineered end-to-end web service using Django for API endpoints and Formeant for multi-agent orchestration.
- Integrated Qdrant as a vector search database, achieving 95% semantic match accuracy.
- Containerized microservices with Docker, enabling zero-downtime deployments and 3x faster scaling.
- Designed an argumentative multi-agent framework for psychiatric diagnosis, medication recommendation, and treatment planning.
- Integrated Explainable AI (XAI) modules to surface decision rationales, improving clinician trust by 40% in user studies.

### Unresourced Language POS Tagger

Feb 2024 – Apr 2024

- Fine-tuned LLMs (Gemma2 9B, Phi4 14B) and classical SVM/HMM/BiLSTM models on a 200K-tagged corpus, achieving 92% accuracy.
- Conducted feature engineering and hyperparameter tuning to optimize sequence labeling performance.

#### Named Entity Recognition Using BI-LSTM

May 2023 – Jul 2023

- Developed a BiLSTM neural network model to identify and classify named entities in text
- Implemented preprocessing pipeline and model training workflows
- Technologies: TensorFlow, NumPy, Pandas, scikit-learn, Matplotlib, Seaborn.

#### Movie-GeoMania: Film Location Visualization

Jul 2023 - Sep 2023

- Built interactive Folium map showcasing top 250 IMDb films; automated data extraction using Selenium.
- Deployed responsive Streamlit app, increasing user engagement by 20%.

#### **PUBLICATIONS**

#### MedicLLM: Comparative Study of LLM Frameworks for Psychiatric Analysis

- Presented at IEEE ICDCC-2024; co-authored with Jyotshna Dongardive and Priyanka Mahadik.
- Benchmarked MultiChain, RAG, and agent architectures to mitigate hallucinations in medical NLP.

### **CERTIFICATIONS**

- Certificate of Completion and Evaluation Research Project **MedicLLM** by Lokmanya Tilak Municipal Medical College (Sion Hospital).
- Machine Learning Workshop, IIT Bombay
- Scientific Computing (Python), FreeCodeCamp
- Data Science 101 (Python)