# **KAJAL PATEL**

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# **Professional Summary**

Machine Learning Engineer, Data Specialist & Software Developer with 2 internships and 4 projects in Al/ML, Computer Vision, and Data Analytics. Proven expertise in Python, TensorFlow, PyTorch, MySQL, and Azure. Achieved 97% model accuracy in real-time systems and enhanced business decision-making through data visualization. Seeking roles in Data Analytics, Computer Vision, Al/ML Engineering, or Software Development.

#### **Skills**

**Proficient in** Python, C++, Data Structures and Algorithms, MySQL, Tensorflow, Machine Learning, MongoDB, Keras. **Familiar with** HTML, Java, Javascript, R, Django, C, Blockchain, Generative AI, LLMs, Azure, Tableau.

## **Work Experience**

#### International Business Machines (IBM) | Project Intern

Jun'24 - Jul'24

- Developed an LSTM model for Video Game Character Movement Prediction, improving trajectory forecasting accuracy by 15%.
- Applied computer vision techniques to process 500+ frames/sec in real-time gameplay datasets.

#### People's Science Institute | Summer Intern

Jun'22 - Jul'22

 Analyzed air pollution datasets (5K+ entries) using MS Excel, uncovering 3 key emission trends through advanced visualizations. Designed system maps via Kumu app, improving spatial analysis efficiency by 25%.

# **Projects**

#### JobGenius - Intelligent job matching made easy

Jun'25 - Present

- Building a FastAPI-based application integrating resume parsing, AI job matching and web-wide job scraping (LinkedIn, Naukri, Glassdoor, etc) reduced manual job search effort by >80%.
- Engineering a custom web scraping pipeline using SerpAPI, and NLP skill extraction to match user resumes with real-time job listings across 5+ job platforms, supporting filters for experience, graduation year, and location.

### Sign Language Recognition System

Jan'25 - May'25

- Developed a real-time gesture recognition system with 97% accuracy, integrating voice/text output for seamless user interaction.
- Trained LSTM model on 45K+ gesture samples, reducing prediction latency to <0.2 seconds.</li>

MindAid Aug'24 – Nov'24

- Developed an Al-driven mental health chatbot utilizing advanced Natural Language Processing (NLP) and Deep Learning techniques (LSTM), enhancing user interaction through a responsive and intuitive UI/UX design.
- Implemented a real-time sentiment analysis feature within the chatbot, enabling personalized support and timely interventions for users.

#### YogaMate: Yoga Instructor in your Pocket

Jan'24 - May'24

- Engineered a real-time posture detection system on 20 poses using OpenCV and MediaPipe, deploying it as a Flask-based web app with Angular frontend. Implemented CNN for posture analysis.
- Designed user-friendly interface for yoga guidance and education.
- Developed a real-time posture detection system featuring angle analysis and an incorrect pose warning mechanism to improve user safety and effectiveness.

# **Education**

## University of Petroleum and Energy Studies, Dehradun, India

• B.Tech in Computer Science & Engineering

## Indore Public School, Indore, India

• Higher Secondary School

# **Certificates & Achievements**

- SPR(Student Placement Representative)- (2023-2025).
- Actively participated in Bootcamp organized by DevTown in collaboration with Microsoft in the year 2022-2023.
- Career Essentials in Generative Al- Microsoft and LinkedIn.
- Data Visualisation: Empowering Business with Effective Insights by Forage (TATA).
- Copyright of YogaMate: Yoga Instructor in your Pocket.
- Professional certificate Microsoft Azure Al-102.
- Badge in Introduction to Generative AI.
- Badge in Introduction to Large Language Models.