

Contact

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Top Skills

Full-Stack Development
Retrieval-Augmented Generation (RAG)
API Testing

Languages

English
Hindi
Nepali

Certifications

EXplorica (3rd Rank)
MechCom (1st Rank)
Java Level 2
Deep Learning Specialization

Bibas Rai

AI Engineer | Specialist in GenAI & RL | AGI Visionary
London, England, United Kingdom

Summary

As an AI Engineer with over 4+ years of experience, I specialize in creating innovative solutions through Machine Learning, Deep Learning, and Generative AI. I am proficient in programming languages such as Python, C++, and JavaScript and have extensive experience with frameworks like PyTorch, TensorFlow, JAX, Scikit-Learn, and Keras. My background in computer vision includes techniques like YOLO and Vision Transformers, while my expertise in Natural Language Processing focuses on fine-tuning large language models and Transformer architectures.

I also possess solid data engineering skills, utilizing SQL, PySpark, Docker, and Kubernetes to develop scalable and efficient systems. Leveraging advanced modeling techniques, such as Reinforcement Learning and Diffusion Models, I aim to deliver impactful AI solutions.

Driven by a passion for bridging technology with real-world applications, I continuously seek to enhance my knowledge and skills in the rapidly evolving AI landscape.

Experience

Omdena

Machine Learning Engineer
October 2024 - January 2025 (4 months)
New York, United States

ThinkZone:

Developed an AI-driven assessment tool to evaluate foundational literacy and arithmetic skills in the Odia language. Collected and analyzed data, including sample papers and government learning standards, to train machine learning models. Assisted in building and fine-tuning OCR and natural language processing models (LLM) for assessing handwritten student responses. Collaborated with cross-functional teams to design a user-friendly interface for the assessment tool and ensure accurate performance. Prepared

technical documentation and research reports to summarize methodologies and findings. Ensured compliance with data privacy and ethical standards throughout the research process.

University of Southampton
AI Engineer
March 2024 - July 2024 (5 months)
Greater London, England, United Kingdom

Led end-to-end development of an AI-powered chatbot using LLMs and Langchain for Retrieval-Augmented Generation (RAG), fine-tuning GPT models to improve conversational accuracy and performance.

Engineered and deployed a custom vector database and RAG architecture on Azure cloud infrastructure, significantly enhancing scalability and response efficiency.

Led full-stack development, including front-end and back-end development, API integration, and data engineering, ensuring seamless operation and user interaction.

AirNode
AI Intern
May 2023 - June 2023 (2 months)
Guildford, England, United Kingdom

Amazon
Quality Specialist
August 2019 - September 2022 (3 years 2 months)
Hyderabad, Telangana, India

Developed and deployed deep learning models (YOLO, ResNets, Mask R-CNN) to detect footpaths and multi-level roads, enhancing delivery route accuracy by 20%.

Applied CNNs and segmentation techniques on satellite images from the US and India, improving map quality and reducing delivery time by 15%.

Collaborated with cross-functional teams and stakeholders to integrate AI models, driving improvements in map precision and delivery efficiency.

RISC - Robotics and Intelligent System Community (LPU)

Associate

August 2015 - September 2019 (4 years 2 months)

Lovely Professional University

I have been responsible for several seminars, workshops and successful projects under RISC organization.

Brain Masters Club

President

September 2017 - August 2018 (1 year)

Lovely Professional University

Brain Masters Club conducts various activities where students get to show their skills. It is a student driven club which strives to bring out the excellence of students in fields like creativity, logical thinking and analytical skills.

Society of Automotive Engineers (SAE LPU)

Associate

September 2016 - August 2018 (2 years)

Lovely Professional University

SAE is a US based international organization which has collegiate educational technical club in institutes like MIT, Stanford and UC Berkeley.

UTTARA -Scientia Divina

Associate

September 2016 - September 2017 (1 year 1 month)

Lovely Professional University, Jalandhar

Currently an active member of the astronomy club - Uttara in LPU.

National Service Scheme(NSS)

Associate

August 2016 - August 2017 (1 year 1 month)

Lovely Professional University

NSS is one of the main voluntary organization which works on National level.

NSS have volunteers all over the country serving the society.

Education

University of Surrey

Master's degree, Artificial Intelligence · (February 2023 - February 2024)

Lovely Professional University

Bachelor of Engineering - BE, Mechanical Engineering · (2015 - 2019)

Army Public School

High School, Physics, Chemistry, Mathematics and English · (2012 - 2014)

Army Public School

ALL INDIA SENIOR SECONDARY EXAMINATION, All Primary

Subjects · (2011 - 2012)