IIT Mandi iHub & HCi Foundation
Technology in Harmony with Human Needs

ADVERTISEMENT FOR

ASSOCIATE – GENERATIVE AI

AT
IIT MANDI IHUB AND HCI FOUNDATION
A Section – 8 Company
Location – IIT Mandi Campus

About IIT Mandi iHub and HCI Foundation: IIT Mandi iHub and HCI Foundation (iHub) is a section 8 company established under the National Mission on Interdisciplinary Cyber-Physical Systems (NM- ICPS). The focus area of IIT Mandi iHub is "Human-Computer Interaction." The vision of the iHub is to be an internationally recognized hub that nurtures HCI research, enables technology translation for industry, and scales skill development. The four areas of IIT Mandi iHub are Research and Technology Development, Skill Development, Incubation & Acceleration, and Collaboration. For more information, visit www.ihubiitmandi.in

***Applications are invited for the position of Associate - Generative AI**

***No. of Positions: 1**

***Apply Here:** https://xt9iuyp9fqg.typeform.com/to/E8jMNapQ

The Role

As a Generative AI Engineer, you will work with a dynamic team of AI researchers and developers to design, implement, and optimize AI models that can generate text, images, and other types of content. You will be involved in building and deploying cutting-edge generative AI technologies, with a focus on integrating retrieval-augmented generation (RAG), graph databases, and vector databases into AI-driven applications.

Responsibilities:

- Model Development: Contribute to the design and implementation of generative models using state-of-the-art techniques, including but not limited to GPT, GANs, VAEs, and Transformer-based models.
- RAG Integration: Implement and optimize Retrieval-Augmented Generation (RAG) methods, combining generative models with retrieval techniques to improve the relevance and quality of generated content.
- Graph and Vector Databases: Work with graph databases (e.g., Neo4j) and vector databases (e.g., Pinecone, Faiss) to store, retrieve, and manage structured and unstructured data, ensuring efficient and scalable model performance.
- Data Preparation: Handle large datasets, including preprocessing, augmentation, and ensuring data quality for training AI models, with a focus on integrating data from graph and vector databases.

- Model Training and Optimization: Participate in training AI models on high-performance computing environments, and fine-tune models to improve performance and efficiency.
- Integration and Deployment: Collaborate with the development team to integrate AI models into applications and deploy them into production environments, utilizing graph and vector databases where applicable.
- Research and Innovation: Stay updated on the latest research and developments in generative AI, RAG, graph databases, and vector databases, contributing to the team's knowledge base by exploring and experimenting with new techniques.
- Performance Monitoring: Monitor and analyze the performance of AI models in production, identifying areas for improvement and implementing optimizations, particularly in the context of retrieval and database efficiency.
- Documentation: Maintain detailed documentation of models, experiments, and development processes to ensure reproducibility and knowledge sharing within the team.

Essential Qualification:

Position	**Qualification**	**Years of Experience**
Associate – Generative AI	Bachelor's Degree in Computer science, Information Technology, or related field, with a specialization in networking and system administration.	1-3 years

Desirable Skills:

- Programming Languages: Proficiency in Python is essential, with experience in libraries such as TensorFlow, PyTorch, or similar AI frameworks.
- Machine Learning: Strong understanding of machine learning concepts, especially in generative models, including experience with neural networks, deep learning, and unsupervised learning techniques.
- RAG Techniques: Experience with Retrieval-Augmented Generation (RAG) and integrating retrieval techniques with generative models to enhance output quality.
- Graph Databases: Familiarity with graph databases like Neo4j, including query languages (e.g., Cypher) and graph-based data modeling.
- Vector Databases: Experience working with vector databases such as Pinecone or Faiss, including building and querying vector-based search systems.
- Mathematical Proficiency: Solid grasp of linear algebra, calculus, and probability theory as they apply to machine learning.
- Data Handling: Experience with data preprocessing, augmentation, and working with large datasets, including text, images, or other content types.

- Problem-Solving: Strong analytical and problem-solving skills with the ability to troubleshoot and debug issues in AI models and database integrations.
- Communication: Good communication skills, with the ability to work in a collaborative environment and effectively share insights and ideas with the team.
- Experience with Cloud Platforms: Familiarity with cloud computing platforms like AWS, Google Cloud, or Azure for model training and deployment.
- Understanding of NLP: Experience with natural language processing techniques and tools, particularly in the context of generative models and retrieval techniques.
- Version Control: Knowledge of version control systems such as Git.

Salary: INR 4,80,000/- INR 7,20,000 Per Annum

Terms/Instructions:

1. *Only shortlisted candidates will be contacted/informed through email/phone.*
2. *IIT Mandi iHub and HCI Foundation reserves the right to fill up the post, not to fill up the position or cancel the advertisement in whole or part without assigning any reason. The company also reserves the right to limit the number of candidates to be called for written tests/or interviews. The decision of the company in this regard will be final.*
3. *Documentary evidence of all educational and professional qualifications will be required to be produced when specified.*
4. *The company can verify the antecedents or documents submitted by a candidate before the appointment, at the time of appointment, or during the tenure of the service. In case it is detected that the documents submitted by the candidates are fake or the candidate has clandestine antecedents/background and has suppressed the said in formation, then their services shall be terminated.*
5. *If it is found later that any information given in the application is incorrect/false, the candidature/ appointment is liable to be cancelled/terminated.*
6. ***The applications will be considered till the post is filled.***

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Website: www.ihubiitmandi.in
Note: All applications should be routed through the application link provided for each position in the advertisement. Email us only in case of questions.