LATHAM & WATKINS

Machine Learning Engineer

Department: Technology & Information Services

Organizational Relationship: Reports to the Manager of Machine Learning

FLSA Status: Exempt

Last Updated: September 5, 2024

General Summary:

The Machine Learning Engineer leads and assists in the development and design of Artificial Intelligence (AI) and Machine Learning (ML) applications to enhance legal operations. This role encompasses R&D, coding, and operationalization of applications. The Machine Learning Engineer provides time estimates, task planning, project follow-up, and status reporting. Collaboration with stakeholders to understand requirements and deliver Information Technology solutions that meet business needs is a key part of the role.

Essential Duties and Responsibilities:

"Essential duties" are those that an individual must be able to perform with or without reasonable accommodation.

1. Works with and makes recommendations to the Development Supervisors and Managers regarding the maintenance and enhancement of existing Latham production applications

2. Works independently to develop and implement comprehensive computing solutions that solve user business requirements; develops solutions in a professional manner and in accordance with established deliverable schedules and firm procedures

3. Works closely with cross-functional teams to develop and implement AI/ML solutions to solve complex business problems and drive innovation

4. Contributes to the entire lifecycle of AI/ML applications including concept, design, test, release, and support

5. Stays current with the latest industry trends and technologies to keep our AI systems at the forefront of technological advancements

6. Participates in consultations with development staff, project analysts and end-users regarding system requirements and functionality; designs recommended solutions

7. Codes, tests, and debugs application systems per developed specifications; develops prototypes of various stages of development

8. Leads small-, medium-, and large-sized projects from design through deployment

9. Assists with the training and knowledge transfer to other developers

10. Prepares appropriate system and user documentation

11. Performs other related projects and assignments as required

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12. Promotes effective work practices, works as a team member, and shows respect for co-workers

Position Specifications

Education

- Bachelor's degree or equivalent required
- Master's degree in Information Systems, Computer Science, Engineering, Data Science or related field preferred

Work Experience

- A minimum of four years' professional Python experience in an industry setting required, including a minimum of two years' experience working with agile teams
- Experience building and productizing AI models and systems preferred

Knowledge, Skills & Abilities

- Advanced knowledge of Python with the ability to design, develop, and debug applications
- Strong knowledge of Python design patterns, functional, and/or object-oriented programming
- Proficiency with Python, including experience with libraries and frameworks relevant to AI application development (e.g., LangChain, Streamlit, LlamaIndex, Sematic Kernel, guidance-ai, GraphRAG, Haystack, Guardrails, etc.)
- Proficiency with machine learning/deep learning frameworks (Scikit-Learn, Pytorch, Tensorflow)
- Proficiency in training or fine-tuning language models (e.g., BERT, Llama2, GPT) and their optimization (LoRA, knowledge distillation, pruning and quantization)
- Proficiency with API development frameworks (e.g., Django, Flask, FastAPI) and knowledge of web standards relating to API development (e.g., CORS, OpenAPI)
- Proficiency with Agile development and task tracking systems (Azure DevOps, JIRA)
- Proficiency with Git
- Proficiency with container technologies (Docker, Kubernetes)
- Proficiency with distributed workflow and task management tools (e.g., Celery, Airflow)
- Proficiency with DevOps and/or MLOps practices (incl. CI/CD/CT, Infrastructure as Code)
- Familiarity with Cloud Services e.g., Azure (preferred), AWS, GCP
- Strong computer science fundamentals that emphasize code reliability, maintainability and readability
- Strong analytical skills, including effectively defining problems and identifying solutions.
- Systems design skills, both conceptual and detail
- Acceptance testing and system implementation skills
- Ability to understand technical problems as presented by non-technical users; the ability to communicate technical solutions in a non-technical manner
- Well-developed and professional interpersonal skills; ability to interact effectively with people at all organizational levels of the firm
- Ability to work in a team environment with a customer-service focus
- Strong communication skills, both written and verbal

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- Organizational skills needed to manage time well, prioritize effectively, and handle multiple deadlines
- Ability to handle confidential and sensitive information with the appropriate discretion

Physical Demands

- Extensive time using a computer including use of a PC keyboard and mouse or similar data input devices is required.

Working Conditions

All Latham & Watkins positions are in a typical indoor office environment.

The statements contained in this position description are not necessarily all-inclusive; additional duties may be assigned, and requirements may vary from time to time, and from location to location.