Junior Research Engineer - Machine Learning Systems
University at Buffalo

Job Title	Junior Research Engineer - Machine Learning Systems
Department	Institute for Artificial Intelligence & Data Sciences
Institution	University at Buffalo
	Buffalo, New York
Date Posted	Mar. 17, 2025
Application Deadline	11/21/2025
Position Start Date	Available immediately
Job Categories	Research Scientist/Associate
Academic Field(s)	Computer Science
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Job Description	

Junior Research Engineer - Machine Learning Systems

Position Information

Position Title: Junior Research Engineer - Machine Learning Systems
Department: Institute for Artificial Intelligence & Data Sciences
Posting Link: https://www.ubjobs.buffalo.edu/postings/54279
Job Type: Full-Time

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Posting Detail Information

Position Summary

UB is seeking a **Junior Research Engineer** with expertise in areas such as AI/machine learning, AI engineering, AI infrastructure, hybrid cloud computing, and parallel programming with GPUs. As a Junior Research Engineer, you should have some basic understanding and experience in the development of scalable AI systems and deployment of distributed ML models. You will be expected to collaborate with senior engineers and researchers across domains. This role includes opportunities to work with state-of-the-art natural language processing, large language models (LLMs), computer vision models, speech models, time series models, and many other related machine learning models, managing AI infrastructure, and optimizing distributed model training and inference.

The IAD at the University at Buffalo is a leader in advancing AI, data science, and computational research. IAD fosters innovation by addressing pressing challenges in areas such as education, health care, robotics, and autonomous vehicles, contributing to the future of the U.S. economy and security. This role offers the opportunity to contribute to UBs pioneering work at the intersection of AI and data science, collaborating with experts to drive advancements that make a lasting societal impact.

Key Responsibilities:

- Contribute to the design and development of full-stack end-to-end AI solutions to support IADs missions.
- Collaborate with UBs various decanal units to understand the requirements of AI solutions and build the solutions accordingly.
- Participate in system architecture discussions and contribute to the design of the full-stack solution architecture, including front-end, back-end, and cloud deployment (such as AWS, GCP).
- Contribute to the design, maintenance, and optimization of AI infrastructure to support the test and deployment of AI solutions, including distributed ML training and inference.
- Under the guidance of senior research engineers and faculty members, work with and deploy machine learning models (including LLM models) into both on-prem systems and hybrid clouds, ensuring efficient integration into production environments.
- Build and maintain scalable, real-time data pipelines and MLOps workflows.
- Contribute to build the AI solutions with robust system performance.

Outstanding Benefits Package

Working at UB comes with benefits that exceed salary alone. There are personal rewards including comprehensive health and retirement plan options. We also focus on creating and sustaining a healthy mix of work, personal and academic pursuit - all in an effort to support your work-life effectiveness. We support your growth and development through our career coaching and training department and we qualify as a public service loan forgiveness organization. Learn more about our **benefit packages**.

About The University at Buffalo

The University at Buffalo (UB) #ubuffalo is one of Americas leading public research universities and a flagship of the State University of New York system, recognized for our excellence and our impact. UB is a premier, research-intensive public university dedicated to academic excellence. Our research, creative activity and people positively impact the world. Like the city we call home, UB is distinguished by a culture of resilient optimism, resourceful thinking and pragmatic dreaming that enables us to reach others every day. Visit our website to learn more about the **University at Buffalo**.

As an Equal Opportunity / Affirmative Action employer, the Research Foundation will not discriminate in its employment practices due to an applicants race, color, religion, sex, sexual orientation, gender identity, national origin and veteran or disability status.

Minimum Qualifications

- Bachelors degree in Computer Science, Engineering or a related field.
- 1 year of software development experience with a focus on systems engineering or applications development, or an equivalent combination of education and experience.
- Proficiency in programming languages such as Python, Golang, and C++ and web development tools such as React, React Native, HTML/CSS/Javascript.
- Knowledge of machine learning concepts and frameworks (e.g., PyTorch, TensorFlow).
- Experience with web development (front-end and back-end), cloud technologies (AWS, GCP), and databases.
- Strong understanding of data structures, algorithms, and software engineering principles.

Preferred Qualifications

- Experience with containerization (Docker, Kubernetes) and parallel programming system like GPUs.

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- Familiarity with MLOps tools and workflows.
- Strong problem-solving skills, with a desire to work on innovative software solutions in collaboration with research teams.

Physical Demands

Salary Range
$80,000 - $100,000

Special Instructions Summary

Is a background check required for this posting?
No

Contact Information

Contact's Name: Virginia Stever
Contact's Pronouns:
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Contact's Phone: 716-645-2477

Posting Dates

Posted: 11/21/2024
Deadline for Applicants: Open Until Filled
Date to be filled: 02/01/2025

Contact Information

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Please reference Academickeys in your cover letter when applying for or inquiring about this job announcement.

Contact

N/A

University at Buffalo

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