Machine Learning Engineer

highheredjobs.com/search/details.cfm



Type: Full-Time
Salary: $121,200 - $215,600 per year
Posted: 9 days ago
Category: Laboratory and Research
Military

Company Description

By working at Harvard University, you join a vibrant community that advances Harvard's world-changing mission in meaningful ways, inspires innovation and collaboration, and builds skills and expertise. We are dedicated to creating a diverse and welcoming environment where everyone can thrive.

Why join Harvard Medical School?

Harvard Medical School's mission is to nurture a diverse, inclusive community dedicated to alleviating suffering and improving health and well-being for all through excellence in teaching and learning, discovery and scholarship, and service and leadership.

You'll be at the heart of biomedical discovery, education, and innovation, working alongside world-renowned faculty and a community dedicated to improving human health. This is more than a job - it's an opportunity to shape the future of medicine.

Job Description

The Core for Computational Biomedicine (CCB) in the Department of Biomedical Informatics (DBMI) at Harvard Medical School (HMS) is looking for a Machine Learning Engineer with advanced expertise to lead development of large language models (LLMs) to advance CCB's mission to leverage data and computation to transform research and education, and to improve health outcomes. CCB provides computational and analytic resources to advance scientific discovery within HMS through its multi-disciplinary team of computational and quantitative scientists who work on collaborative projects both within the center and with members of the HMS community. The selected candidate will play a pivotal role in advancing the center's mission to harness the power of computational techniques in the field of medicine. By developing medical LLMs, the engineer will contribute to educating the next generation of medical students and enhancing clinical decision-making processes.

Key Responsibilities:

- Develop, implement, and optimize medical large language models tailored to the needs of medical education and clinical decision support.
- Collaborate with interdisciplinary teams comprising biologists, clinicians, and data scientists to understand domain-specific requirements and translate them into computational solutions.
- Stay updated with the latest advancements in deep learning and machine learning to ensure the models developed are state-of-the-art.
- Develop infrastructures for data transformation and ingestion.
- Build AI models that make predictions based on large quantities of data.
- Explain the usefulness of the AI models created to stakeholders.
- Transform machine learning models into APIs to interact with other applications.
- Use expert knowledge to lead research AI and data science projects.

Qualifications

Basic Qualifications:

Minimum of seven years' post-secondary education or relevant work experience.

Additional Qualifications and Skills:

- **A Master's or PhD in Computer Science, Computational Biology, or a related field is strongly preferred.**
- Minimum of 3 years of hands-on experience in developing complex deep learning solutions to tackle scientific challenges.
- Proficiency with the Python deep learning software stack, particularly expertise in PyTorch, Numpy, and related packages.
- Experience handling and processing large and diverse datasets, especially medical texts, journals, or electronic health records.
- Ability to collaborate effectively with non-technical stakeholders, such as doctors and medical researchers.
- Experience with experiment tracking and project management tools, notably frameworks like Weights & Biases.
- Prior experience in fine-tuning large language models for specific tasks.
- Demonstrated experience in optimizing deep learning models for better performance and efficiency.
- Understanding of biology and/or medicine to bridge the gap between pure machine learning and its applications in the medical field.
- A track record of publications in technical conferences or journals.

Additional Information

- **Standard Hours/Schedule:** 35 hours per week
- **Visa Sponsorship Information:** Harvard University is unable to provide visa sponsorship for this position.
- **Pre-Employment Screening:** Identity, Education, Criminal
- **Other Information:** Please note that we are currently conducting a majority of interviews and onboarding remotely and virtually. We appreciate your understanding.
- **Staying Informed About Your Application:** Due to the high volume of applications, we may not always be able to reach out right away, but you can track your status anytime through the Careers@Harvard portal.

#LI-DK1

Work Format Details

This position has been determined by school or unit leaders that some of the duties and responsibilities can be effectively performed at a non-Harvard location. The work schedule and location will be set by the department at its discretion and based upon operational needs. When not working at a Harvard or Harvard-designated location, employees in hybrid positions must work in a Harvard registered state in compliance with the University's Policy on Employment Outside of Massachusetts. Additional details will be discussed during the interview process. Certain visa types and funding sources may limit work location. Individuals must meet work location sponsorship requirements prior to employment.

Salary Grade and Ranges

This position is salary grade level 060. Please visit Harvard's Salary Ranges to view the corresponding salary range and related information.

Benefits

Harvard offers a comprehensive benefits package that is designed to support a healthy work-life balance and your physical, mental and financial wellbeing. Because here, you are what matters. Our benefits include, but are not limited to:

- Generous paid time off including parental leave
- Medical, dental, and vision health insurance coverage starting on day one
- Retirement plans with university contributions
- Wellbeing and mental health resources
- Support for families and caregivers
- Professional development opportunities including tuition assistance and reimbursement
- Commuter benefits, discounts and campus perks

Learn more about these and additional benefits on our Benefits & Wellbeing Page.

EEO/Non-Discrimination Commitment Statement

Harvard University is committed to equal opportunity and non-discrimination. We seek talent from all parts of society and the world, and we strive to ensure everyone at Harvard thrives. Our differences help our community advance Harvard's academic purposes.

Harvard has an equal employment opportunity policy that outlines our commitment to prohibiting discrimination on the basis of race, ethnicity, color, national origin, sex, sexual orientation, gender identity, veteran status, religion, disability, or any other characteristic protected by law or identified in the university's non-discrimination policy. Harvard's equal employment opportunity policy and non-discrimination policy help all community members participate fully in work and campus life free from harassment and discrimination.

We are an equal opportunity employer and all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, national origin, disability status, protected veteran status, or any other characteristic protected by law.

Related Searches:

- Laboratory and Research
- Military-Friendly