Lead Software Engineer, Digital Transformation

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Type: Full-Time
Salary: $121,200 - $215,600 per year
Posted: 10 days ago
Category: Software Engineer/Programmer
Military

HARVARD UNIVERSITY

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 Business School?

Harvard Business School, located on a 40-acre campus in Boston, was founded in 1908 as part of Harvard University. It is among the world's most trusted sources of management education and thought leadership. For more than a century, the School's faculty has

combined a passion for teaching with rigorous research conducted alongside practitioners at world-leading organizations to educate leaders who make a difference in the world. Through a dynamic ecosystem of research, learning, and entrepreneurship that includes MBA, Doctoral, Executive Education, and Online programs, as well as numerous initiatives, centers, institutes, and labs, Harvard Business School fosters bold new ideas and collaborative learning networks that shape the future of business.

Be a pioneer in business, education, and global impact by joining the Harvard Business School (HBS) Digital Transformation team - a "startup with assets," where you will have the chance to deploy cutting-edge digital- and emerging-technology education solutions. Where else can you make a difference at the intersection of technology, world-class education, noble purpose, and timeless legacy?

Job Description

Job Summary:

As our Lead Software Engineer, you will collaborate with and shepherd software engineers, data scientists, and machine learning engineers, and will develop AI-based software solutions to better address the needs of our constituents (students, alumni, faculty, researchers, staff, and community at large). You will have the chance to guide and continuously improve the ways in which we engage, educate, and empower people around the world, combining the best of human touch and technology scale, exploring the use of everything from the latest generative AI models to blended and immersive environments, multi-modal and varied-form content, and the most innovative research and teaching methodologies.

Job-Specific Responsibilities:

- Develop production-ready software solutions that solve real business problems, taking into account business needs and technology/operations landscape; lead interaction with internal stakeholders and technology on specific projects and initiatives
- Apply software engineering, data science, machine learning, and AI techniques to derive business value from the full range of internal and external data, leveraging Cloud-based technology
- Design solutions, build initial code, and provide documentation with ways of working to minimize time to value and maximize re-usability
- Translate complex data and methodology into strategic, operationally feasible insights and recommendations; automate implementation
- Communicate clearly and effectively to technical and non-technical audiences, verbally and visually, to create understanding, engagement, and buy-in

- Identify trends and opportunities to drive innovation, both in what we do and how we do it; evaluate new software engineering, data science, machine learning, and AI technologies and tools that can boost team performance, innovation, and business value
- Manage, coach, and mentor a team of software engineers and data scientists, serving as a predominant technical expert
- Actively contribute to and re-use community best practices
- Embody the values and passions that characterize Harvard Business School, with empathy to engage with colleagues from a wide range of backgrounds
- Promote software engineering, data science, machine learning, AI, and digital and emerging technologies at Harvard Business School in relevant channels through community engagement, networking, speeches, and publications as applicable.
- Build trust and collaboration by being present on-site and engaging directly with colleagues and various constituents.
- This role is responsible for other duties as assigned.

Qualifications

Basic Qualifications:

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

Additional Qualifications and Skills:

Required skills

- Bachelor's/Advanced Degree in Mathematics, Physics, Computer Science, Engineering, Statistics, or 7+ years equivalent work experience
- 3-5 years of experience in developing a variety of software products in a commercial environment
- **2+ years of experience in building generative AI-based products.**
- Strong Python and Typescript/JavaScript skills required;
- Expertise in multivariate statistical modelling (e.g., clustering, regression, principal components and factor analysis, time-series forecasting, Bayesian methods) and modern machine learning (ensemble methods, regularization, gradient boosting, representation learning, deep neural networks, transformers architectures, self-supervised learning, and MLOps fundamentals) required
- Experience with cloud computing platforms (AWS, GCP, or other), or equivalent on-premise platform
- Experience working in agile methodology is required
- **Prior experience in leading data science and machine learning based software development projects** focused on solving business problems and seizing business opportunities

Desired skills

Proficiency in SQL desirable

- Ability to mentor and lead others; provide hands-on technical guidance; conduct code reviews
- Ability to simultaneously coordinate and track multiple deliverables, tasks, and dependencies across multiple stakeholders / business areas
- Experience with deep learning and neural network architectures (e.g., CNNs, RNNs, transformers), including generative and self-supervised models, and with frameworks such as TensorFlow or PyTorch is desirable.
- Proficiency with data visualization tools is desirable

Additional Information

- **Standard Hours/Schedule:** 40 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:**
- This role has the possibility of being remote or hybrid. We consider hybrid to be a combination of remote and onsite work at our Boston, MA based campus. HBS expects all staff to be onsite a minimum of 3 days per week and departments provide onsite coverage Monday - Friday. Remote work may be considered for individuals living at least 100-mile radius from campus and where all work will be completed within a state that Harvard is registered to do business in (CA - exempt roles only, CT, GA, IL, MA, MD, ME, NH, NJ, NY, RI, VA, VT or WA). Specific hours and days onsite will be determined by business needs and are subject to change with appropriate advanced notice.
- We may conduct candidate interviews virtually (phone and/or via Zoom) and/or in-person for this role
- As part of our evaluation, candidates are required to complete a **Take Home Assignment** after clearing Technical Recruiter Screen. This assignment will test your specific skills/knowledge areas relevant to the role.
- A cover letter is required to be considered for this opportunity

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.
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