Software Engineer, Computational Policy Lab

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Type: Full-Time
Salary: $76,400 - $130,000 per year
Posted: 33 days ago
Category: Software Engineer/Programmer
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 the Harvard Kennedy School?

The John F. Kennedy School of Government at Harvard University is one of 12 graduate and professional schools at the university. Harvard Kennedy School's mission is to improve public policy and leadership so people can live in societies that are more safe, free, just, and sustainably prosperous. By combining cutting-edge research, the teaching of outstanding students, and direct interaction with practitioners, we have an impact on solving public problems that no other institution can match. When you work at Harvard Kennedy School, you make a difference.

Job Description

Professor Goel's Computational Policy Lab at the Shorenstein Center at Harvard Kennedy School is seeking a Software Engineer with specialized expertise in software development, generative AI, and data science. This position is housed within the Shorenstein Center on Media, Politics and Public Policy. Through teaching and research at the Kennedy School of Government and its program of visiting fellows, conferences and initiatives, the Center is at the forefront of its area of inquiry.

Application Requirements

Applications must include the following, or they will be considered incomplete:

- Resume
- Cover letter including:
  - A link to a piece of code on GitHub that you wrote, ideally something that demonstrates your technical skills and you'd enjoy walking us through if you were selected for an interview.
  - A short description of the project you linked to.
  - Confirmation that you are legally authorized to work in the United States without sponsorship for at least two years.

Duties and Responsibilities:

Core responsibilities encompass specialized tasks including:

- Independently perform complex applications/web development for projects of large to very large size and complexity
- Design and develop complex software systems for large-scale research projects, with a focus on education technology and generative AI-based tools.
- Leverage recent breakthroughs in machine learning and natural language processing to build, test, and deploy advanced algorithmic tools that underpin rigorous empirical research in real-world environments.
- Lead and collaborate on technically challenging projects involving AI, machine learning, natural language processing, and large-scale experimentation.
- Contribute to the design and execution of randomized controlled trials and other empirical methods used to evaluate the impact of AI-driven interventions.
- Collaborate closely with other researchers to translate theoretical models and experimental designs into high-performance, production-ready systems.
- Co-author or contribute to academic publications and technical reports intended for peer-reviewed journals, conference proceedings, and lay audiences.
- Stay abreast of emerging technologies and research developments related to AI, computational social science, and causal inference.
- Abide by and follow the Harvard University IT technical standards, policies and Code of Conduct.

Projects you will work on include, but are not limited to:

- **AI in Education:** We are designing and testing AI-powered technologies that go beyond generic tools like ChatGPT to provide tailored support for student learning. Our flagship tool, PingPong, is currently being evaluated through a large-scale randomized experiment across universities and community colleges nationwide. In addition, we are piloting innovations such as virtual lectures, personalized student diagnostics, and teacher co-pilot tools. This role will help design, implement, and scale these technologies so they can be rigorously tested and used in real classroom settings.

- **AI in Public Policy:** We are engineering AI systems that improve public service delivery and decision-making. Examples include tools that assist county prosecutors in making unbiased charging decisions, help public defender clients to avoid jail time due to missed court dates, and support adjudicators as they process unemployment insurance claims. In this role, you will work on building robust, production-quality systems that can be deployed in high-stakes government environments where reliability, fairness, and performance are critical.

#LI-DS1

Qualifications

Basic Qualifications:

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

Additional Qualifications and Skills:

- Bachelor's degree and/or relevant work experience in computer science, data science, or a closely related field, with a strong emphasis on advanced software engineering, machine learning, artificial intelligence, and empirical research methodologies.
- Experience working with generative AI pipelines.
- Experience deploying software in a cloud environment.
- Demonstrated team performance skills, service mindset approach, and the ability to act as a trusted advisor.
- Experience with Python / TypeScript and familiarity with Svelte / React preferred.

Additional Information

- **Appointment End Date: This is a fully benefits-eligible term appointment, ending one year from date of hire, with the possibility of renewal.**
- **Visa Sponsorship Information:** Harvard University is unable to provide visa sponsorship for this position
- **Pre-Employment Screening:** Identity, Education

Important Application instructions:

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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 057. 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.