Human Resources

MIT Position Description

Job Title: Technical Associate 1, SRS	**Position Title: Research Assistant / Technical Associate 1**
Department: MIT Sloan IDE/FutureTech Lab	**% Effort or Wkly Hrs: 100%**
	Reports to: Research Scientist 1, MIT IDE/FutureTech Lab

Position Overview

The MIT Initiative on the Digital Economy / MIT FutureTech seeks to hire one Research Assistant / Technical Associate 1 with an Economics background. The successful candidate will work in the following areas:

1. **Technology Adoption.**
    a. The identification of adoption bottlenecks, such as, workforce skills, firm size, and other factors
    b. Understanding the market forces and technological factors that (dis-)incentivize AI/technology adoption

2. **Performance and competitive effects of AI/technology.**
    a. Studying the impact of AI/technology adoption on firm performance/productivity
    b. Understanding the effects of AI/technology adoption on reallocation processes/business dynamism
    c. The impact of AI/technology on performance differences between firms
    d. The relationship between AI/technology adoption and market power in output and input markets

One-year term with the possibility of extension based on performance, funding, and departmental needs. Work will be primarily on-site in the lab.

Principal Duties and Responsibilities (Essential Functions**)

The successful candidate will spend significant time preparing and analyzing firm- and firm-worker-level data to study the above topics. Therefore, a key requirement is experience in working with firm- or firm-worker-level datasets, such as confidential census micro data, Compustat, ORBIS, or other data sources. Additionally, the successful candidate will contribute to writing reports, scientific papers, and grant applications.

Supervision Received

Reports to Research Scientist 1

Works under general oversight with direction on non-routine issues

Supervision Exercised

None.

Qualifications & Skills

MINIMUM REQUIRED EDUCATION AND EXPERIENCE:

- Completed undergraduate studies in Economics or similar
- Interest in working in an interdisciplinary lab with computer scientists and engineers
- Strong data analysis skills
- Strong background in statistics / econometrics
- Experience in working with firm or firm-worker-level datasets
- Proficiency in statistical software (Stata, R, Python)
- Solid English communication skills (verbal and written)
- Desire and skill (e.g. organizational abilities) to work in teams

The Technical Associate 1/Research Assistant's primary appointment would be at the MIT Sloan School of Management, and they would have a secondary appointment at the MIT Computer Science and Artificial Intelligence Lab. The Technical Associate 1/Research Assistant would be supervised by Dr. Matthias Mertens, Research Scientist at the MIT IDE/FutureTech.

PREFERRED EDUCATION AND EXPERIENCE:

- Experience writing reports, scientific papers, and grant applications.
- Minimum 3-year US residency due to residential requirements for accessing US census micro data

** To comply with regulations by the American with Disabilities Act (ADA), the principal duties in position descriptions must be essential to the job. To identify essential functions, focus on the purpose and the result of the duties rather than the manner in which they are performed. The following definition applies: a job function is essential if removal of that function would fundamentally change the job.

Provided as background:

About MIT FutureTech

MIT FutureTech, which spans the MIT Sloan School of Management's Initiative on the Digital Economy (IDE) and the MIT Computer Science and Artificial Intelligence Lab (CSAIL), is an interdisciplinary group of computer scientists, engineers, and economists who study the foundations of progress in computing and Artificial Intelligence: the trends, implications, opportunities and risks. Economic and social change is underpinned by advances in computing: for instance, improvements in the miniaturization of integrated circuits, the discovery and refinement of algorithms, and the development and diffusion of better systems and processes. We aim to identify and understand the trends in computing that create opportunities or risks and help leaders in computing, scientific funding bodies, and government to respond appropriately.

Our research therefore helps to answer important questions including: Will AI progress accelerate or decline – and should it? What are the bottlenecks to growth from AI, and how can they be solved? What are the risks of AI, and how can we mitigate them?

To support our research, we run seminars and conferences to better connect the field of computer scientists, economists, and innovation scholars to build a thriving global research community.

To disseminate it, we advise governments, nonprofits and industry, including via National Academies panels on transformational technologies and scientific reliability, the Council on Competitiveness' National Commission on Innovation and Competitiveness Frontiers, and the National Science Foundation's National Network for Critical Technology Assessment.

Our work has been funded by Open Philanthropy, the National Science Foundation, Microsoft, Accenture, IBM, the MIT-Air Force AI accelerator, and the MIT Lincoln Laboratory.

Some of our recent outputs:

- The AI Risk Repository: A Comprehensive Meta-Review, Database, and Taxonomy of Risks from Artificial Intelligence
- Beyond AI Exposure: Which Tasks are Cost-Effective to Automate with Computer Vision?
- How industry is dominating AI research
- The Quantum Tortoise and the Classical Hare: A simple framework for understanding which problems quantum computing will accelerate (and which it will not)
- A workshop on AI scaling and its implications for AI development, automation, and more
- The Great Inflection? A Debate About AI and Explosive Growth
- There's plenty of room at the Top: What will drive computer performance after Moore's law?
- Deep Learning's Diminishing Returns: The Cost of Improvement is Becoming Unsustainable

- America’s lead in advanced computing is almost gone
- The Decline of Computers as a General Purpose Technology: Why Deep Learning and the End of Moore’s Law are Fragmenting Computing
- How Fast Do Algorithms Improve?

Some recent articles about our research:

- Techcrunch: MIT researchers release a repository of AI risks
- CNN: AI and the labor market: MIT study findings
- TIME: AI job replacement fears and the MIT study
- Boston Globe: AI's impact on jobs according to MIT

You will be working under the leadership of Dr. Neil Thompson. Prior to founding MIT FutureTech, Dr. Thompson was a professor of Innovation and Strategy at the MIT Sloan School of Management. His PhD is in Business & Public Policy from UC Berkeley. He also holds master’s degrees in Computer Science (UC Berkeley), Economics (London School of Economics), and Statistics (UC Berkeley). Prior to joining academia, Dr. Thompson was a management consultant with Bain & Company and worked for the Canadian Government and the United Nations.