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Education

Harvard University
Ph.D. in Business Economics, 2027 (expected)
Visiting Student, Stanford Digital Economy Lab, 2026
M.A. in Business Economics, 2023

Massachusetts Institute of Technology
B.S. in Mathematics and in Economics, *Phi Beta Kappa,* 2021

Fields

Labor Economics
Personnel Economics
Digital Economics and AI

References

Lawrence Katz
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Erik Brynjolfsson
Stanford University
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Affiliations

Stanford Digital Economy Lab	2026-
Social Finance Institute	2025-
Opportunity Insights	2021-

Job Market Paper

Artificial Intelligence in the Firm: Bottlenecks in Software Production, *with James Stratton*, November 2026

We examine the impacts of generative AI on productivity, output, and employment in software engineering. Firm production requires combining complementary inputs, across which AI has differential productivity effects. Inputs that are difficult to automate can become "bottlenecks," constraining output and shaping labor demand. We study these dynamics using a novel proprietary dataset from an engineering analytics platform, covering 445M work events — GitHub coding activity, Jira issues, and Google Calendar events — for 720,542 workers at 655 firms. We estimate the effects of two generations of AI coding tools — assistants and agents — by exploiting variation in timing of firm adoption. AI substantially increases code output but has smaller effects on final software output and no detectable effect on employment. Code review becomes the bottleneck. Code waits longer to reach a reviewer, spends longer in active review, and receives more requested changes. We build and calibrate a model of firm production and AI adoption, then use it to simulate AI's long-run impacts under continued firm adjustment and technological progress. The model predicts moderate increases in output and decreases in total employment, with effects of smaller magnitude if the bottleneck persists.

Working Papers

Task Assignment and Career Advancement, *with James Stratton*, October 2026

How do the tasks workers are assigned shape their career advancement? We examine this question using data from an engineering analytics platform on tasks assigned to software engineers, merged with LinkedIn data on workers' career trajectories. We exploit variation in workers' task assignment arising from fluctuations in their teams' task portfolios at the time they join. Assignment to more complex tasks in the first quarter of employment significantly increases the likelihood of promotion within two years. We provide evidence consistent with a human capital accumulation channel: workers exhibit steep learning curves in their first year at the firm, with task completion times falling sharply with accumulated experience. Finally, we document that women are assigned tasks that are lower priority and less technical, and they experience lower promotion rates and average wages.

Connecting Online: The Effects of Social Interaction on Academic Performance, May 2021

I study whether online social interaction can improve well-being and academic performance, and whether people accurately anticipate these effects. I conduct a randomized controlled trial with 339 college-aged adults, in which treated individuals engage in a short video conversation with someone they know. The social interaction treatment significantly improves well-being, increasing happiness and reducing loneliness. Its effect on an academic reasoning test is positive but statistically insignificant. Participants' beliefs are directionally correct: they expect that other individuals are lonely, and that social interaction improves well-being and academic performance. However, they overestimate both their peers' baseline loneliness and the magnitude of the treatment's benefits. These results show that even a brief, digitally mediated interaction can improve well-being. They also provide evidence against the hypothesis that people underinvest in social connection because they underestimate others' loneliness or the benefits of interacting.

Research in Progress

AI as a Career Advisor, *with Katelyn Cranney and Leo Saenger*

Job search assistance programs can be highly effective but are often costly and difficult to scale. We examine whether AI can provide low-cost, personalized guidance in partnership with CareerVillage, a nonprofit specializing in career navigation. Using platform data from 70,000 conversations with 16,000 users, we characterize how individuals use AI throughout the job-search process. Users seek assistance with self-assessment, information gathering, and practical tasks. We then conduct a randomized controlled trial among unemployed job seekers to estimate the effects of AI-powered career coaching. We develop a customized coaching tool and evaluate its effects on career decision-making, employment outcomes, and longer-run job satisfaction.

Policy Papers

Shaping the Future of Work: Generative AI, Inequality, and Opportunity, *The Social Finance Institute: Workforce and Economic Mobility Papers*, 17 December 2025

MIT Values Statement, *with Daniel Hastings, Tracy Gabridge, et al.*, 31 March 2022

Employment & Service

MIT Corporation (Board of Trustees), *Trustee*	2021-26
Social Finance Institute, *Research Fellow*	2025-26
Federal Reserve Bank of San Francisco, *Financial Supervision Intern*	2019

Fellowships & Awards

Schmidt Sciences AI at Work Grant, *with James Stratton* ($127,000)	2026
Stripe Economics of AI Fellowship ($10,000)	2025
J. Robert Beyster Fellowship, Study of Employee Ownership and Profit Sharing, *with Alexander Busch and Nathan Lazarus* ($25,000)	2025
Harvard University, James M. and Cathleen D. Stone Fellowship in Inequality and Wealth Concentration ($5,000)	2023
Opportunity Insights Doctoral Fellowship ($10,000)	2021
Paul and Daisy Soros Fellowship for New Americans ($90,000)	2021
Phi Beta Kappa	2021
Burchard Scholarship	2019

Research Assistance	Harvard, RA to Winnie van Dijk, *Concentration in Rental Housing Markets*	2022-23
	MIT, RA to Amy Finkelstein, *Blueprints for Universal Health Coverage*	2019-20
	MIT, RA to David Autor, *New Frontiers: The Origins and Evolving Content of New Work*	2019-20
	MIT, RA to Frank Schilbach, *The Economic Consequences of Increasing Sleep Among the Urban Poor*	2017-19
Teaching	Harvard Medical School, Causal Inference in Economics and Medicine, *with Joshua Angrist*	2025
		2024
	Harvard, EC 980B Education in the Economy, *with Claudia Goldin and Lawrence Katz*	2024
	Harvard, EC 2330 History and Human Capital (Ph.D.), *with Claudia Goldin and Lawrence Katz*	2023
	Harvard, ECON 980X The Economics of Work and Family, *with Claudia Goldin*	2023
	Harvard, Math Camp: Econometrics (Ph.D.), *with Jennifer Walsh*	2021
	MIT, 14.75 Political Economy and Economic Development, *with Benjamin Olken*	2020
	MIT, 14.13 Psychology and Economics, *with Frank Schilbach and Dmitry Taubinsky*	
Seminars & Conferences	INFORMS Annual Meeting, OpenAI Conference, INFORMS Manufacturing & Service Operations Management, Society of Labor Economists (SOLE), Google, MIT FutureTech, Stanford Labor/Public Student Workshop, Stanford Digital Economy Lab	2026
	UC Berkeley Artificial Intelligence Research (BAIR) Laboratory, MIT Computer Science and AI Laboratory (CSAIL), Opportunity Insights Conference, University of Chicago Machine Learning in Economics Conference, Harvard Kennedy School Stone Scholar Symposium	2025
Languages	English (Native), Mandarin (Conversational), French (Basic)	
Software	Python, R, Stata, SQL	
Citizenship	USA	