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Digital Economics and AI Tutorial
National Bureau of Economic Research

To the organizers of the Digital Economics and AI Tutorial,

I am writing to apply to attend the NBER Digital Economics and AI Tutorial to be held at Stanford University in February 2026.

I am a fourth-year Ph.D. candidate in Economics at The Ohio State University, having entered the program in 2022. I completed the Ph.D. core in micro, macro, and econometrics and passed the qualifying exams, then specialized in labor economics as my primary field and econometrics as my secondary field. I passed the labor field and candidacy exam, and my field training includes courses in labor demand, labor supply, human capital, and causal inference, as well as econometrics courses in time series and spatial econometrics, discrete choice and dynamic games, and parametric, nonparametric, and semiparametric identification.

My research sits at the intersection of labor, health, and the economics of AI and innovation. In my current work with Professor Bruce Weinberg on an NSF-funded project, I study how higher education produces AI-related skills and how those skills map into labor-market outcomes. Using statewide administrative data that link detailed student records to wage and employment histories, we construct granular measures of AI exposure and AI-related human capital to analyze how the supply of AI skills responds to rapidly evolving labor-market demand and how students' AI exposure shapes their labor market outcomes.

Another core project in my agenda examines employer-sponsored health insurance-induced labor market frictions and studies how the Affordable Care Act changed firm sorting, the way employers bundle wages with nonwage compensation, and employees' job mobility and career trajectories. This work motivates a broader line of future research in digital economics and AI, where I view AI not only as a technological shock but as a potential transformation of information structure in insurance and compensation markets. In this line, I seek to understand how AI-based prediction alters insurers' screening and risk-rating technologies, potentially shifting markets from pooling toward more separating equilibria even under regulation, and how firms use digital tools to design nonwage benefit menus as multidimensional screening devices for worker productivity and health risk. A central, still underexplored

question is when and under what conditions AI and digital platforms attenuate information and transaction frictions in insurance and compensation design, and when they instead reshape selection patterns, distributional outcomes, and frictions.

Attending the NBER Digital Economics and AI Tutorial would be an exceptional opportunity to deepen my understanding of frontier research in this area. I would greatly value the chance to see how leading scholars formulate questions, structure empirical and theoretical work, and combine new forms of data with economic modeling in digital and AI settings. Exposure to a broad range of ongoing projects would help me place my own work in the context of the evolving literature on digital markets and AI, and sharpen my sense of which directions are most promising for future research.

I am particularly interested in the interactive aspects of the tutorial. The opportunity to learn from presentations of work in progress, to ask detailed questions about methods and data, and to participate in focused discussions with faculty and fellow graduate students would be extremely valuable for my development as a researcher. I would also greatly value the chance to build long-term connections with other economists who share an interest in digital economics and AI, since I expect that sustained collaboration and exchange in this community will be crucial for making progress on these topics.

Thank you very much for considering my application. I would be honored to participate in the Digital Economics and AI Tutorial, to learn from the organizers and participants, and to contribute actively to discussions of ongoing and future research.

Sincerely,
Harrison Yongjoon Youn