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Graduate studies and research agenda

I am a third-year Ph.D. student in economics at UC San Diego, enrolled since 2024. My research interests span labor economics, innovation, and macroeconomics, with a focus on artificial intelligence. I hold an M.Sc. in Economics and Finance and a B.Sc. in Computer Science and Economics from Bocconi University. Before my Ph.D., I worked as a research associate at INSEAD and Bocconi. My research asks how technological change shapes economic inequality. I study how new technologies change the way firms make employment decisions and organize production, why adoption differs across places, and how these changes affect the distribution of income and opportunity.

AI screening and competition for workers

In *Firm Competition in AI Screening*, I work with Brian Jabarian, Mariya Pominova, and Pellumb Reshidi to study how AI changes competition for workers. Better screening can help an employer identify suitable candidates. But its return also depends on which applicants competing employers pursue. Even with independent screening errors, firms that value similar skills may target the same candidates. Employers may also evaluate candidates more similarly when their AI systems rely on common data inputs, processing pipelines, or models. We examine how these two sources of agreement shape hiring and firms' returns to AI adoption.

The project draws on a randomized comparison of AI and human interviews in entry-level customer-service recruitment. The data include interview scores, language and analytical assessments, offers, job starts, and retention. Repeated applications and available interview transcripts offer ways to study how consistently candidates are evaluated. Random assignment identifies effects of interview technology in this setting.

Our model separates screening precision, employers' demand for different skills, and dependence across their assessments. It shows why a firm's gains from better screening can shrink when competitors also adopt AI. The empirical challenge is to separate agreement that reflects workers' underlying skills from agreement driven by common errors. Model-based counterfactuals separate the effects of better information from those of more correlated AI assessments as adoption spreads.

People analytics and internal labor markets

My second project studies information produced after hiring. Internal records reveal aspects of performance that outside employers cannot fully verify. AI-powered evaluation may improve the current employer's use of internal records without making that information available to other employers. If outside offers anchor pay within a role, better private evaluation may therefore change promotion decisions while within-role pay changes little. I ask how this gap between internal and external information affects career opportunities and the division of gains between firms and workers.

I have assembled a 2016–2022 firm–occupation–year panel combining Revelio employment histories and postings with O*NET occupational measures. Event studies describe organizational changes around the first observed people-analytics hiring event. Their causal interpretation remains open because investment can coincide with restructuring. My next steps are to strengthen the research design, refine the measurement of personnel AI adoption, and explore opportunities to link employment histories to administrative records.

Uneven technological adoption

A third project asks why adoption and its gains vary across places even when technologies are widely available. I am developing a spatial model in which firms need scarce local services to implement a technology. My empirical goal is to examine whether access to nearby technical workers constrains adoption, focusing on tasks that require on-site work, such as installing industrial motors or adapting factory equipment. As empirical preparation, I am constructing historical measures of mechanization and electrification from Italian industrial censuses. This project complements my workplace research by asking which firms can put new technologies to use and benefit from them.

Why this tutorial

The tutorial would be particularly valuable as I develop the questions and empirical strategies for my dissertation. I hope to learn how researchers in digital economics and AI use field experiments to test economic mechanisms, evaluate competing explanations, and connect evidence from individual firms to broader market outcomes. I am especially interested in the mechanisms that determine who gains and who loses from technological change. During the tutorial, I hope to discuss these distributional questions directly with researchers and other graduate students.