

Statement of Purpose

I am applying to xphx_phdname as the next step in my career, aiming to expand the frontier of knowledge while exploring novel ideas using the skills acquired during my training. I would bring a strong research and econometric background to my academic pursuits. In the last three years, I have refined my skills by working as a research professional at the [Development Innovation Lab](#) (DIL) under the guidance of Professor Michael Kremer. All my previous experiences and scientific interests motivate me to join a community of researchers to strengthen my analytical and critical thinking skills, answer innovative questions, and propose solutions to problems with the potential to impact society in the future.

I am interested in conducting research in applied microeconomics. During my previous studies, I built a strong foundation in econometrics (excelling in two introductory and three advanced courses), which I applied over five years in real-world contexts. I am now looking forward to using econometrics and causal inference tools to address critical questions in the field of applied microeconomics. Some specific examples of my interests include researching how individuals' behavioral biases influence their future outcomes, particularly in education and labor. I am also interested in examining the effects of zero-sum thinking on social mobility, using experimental economics to disentangle ways to shift away from it. Additionally, I aim to investigate determinants of workplace productivity, such as peer effects, group heterogeneities, or workplace amenities, focusing on team settings. I am eager to develop the skills necessary to address these questions using both structural and reduced-form analysis.

My ability to conduct independent research is evident in my undergraduate and master's theses, where I pursued original questions driven by personal interests and societal concerns. In my undergraduate thesis, my passion for football—and my steadfast refusal to call it soccer—combined with curiosity about teams' high spending on players led me to investigate the actual impact of individual players on team performance. I automated data collection to build a comprehensive player-match panel dataset and used unexpected injuries as exogenous shocks in an event study approach, estimating their effects on both players and teams. This research honed my data analysis and econometric skills and earned an honorable mention for originality. In my master's thesis, I examined the impact of marijuana legalization on the consumption of hazardous drugs like cocaine in Colombia. Utilizing individual-level data, I developed a simultaneous model to jointly estimate parameters for drug access, the decision to consume, and the quantity consumed. I conducted a counterfactual analysis to predict drug use probabilities in an open-access scenario, providing valuable policy insights. These projects demonstrate my capacity to independently formulate research questions, devise appropriate methodologies, and effectively utilize data to address complex issues.

My experience comprises working as a research assistant since my undergraduate studies. I first interned at the Central Bank of Colombia, the country's foremost economic research organization. There, I collaborated to assess the impact of a vocational training program on students' long-term outcomes. Subsequently, I worked as a research assistant on “[Spatial Mobility, Economic Opportunity, and Crime](#)” (*R&R AER*), where I contributed to the reduced-form estimation analysis of the paper. Later, I worked with Professor Juliana

Londoño-Vélez (UCLA) and co-authors, assisting them on “[Reparations as Development? Evidence from Victims of the Colombian Armed Conflict](#)” (*R&R AER*), where I estimated Callaway and Sant’Anna and other modern estimators to avoid biased comparisons in an identification strategy setting based on the two-way-fixed-effects model. I also used machine learning models to predict treatment status and timing to validate the identification strategy’s assumptions.

My work at the Development Innovation Lab further sharpened my research skills. I worked on updating the World Bank [Smart Buys report](#) on cost-effective approaches to improve global learning, and various RCTs that assess the impact of interventions like providing air filters to schools or conditional cash transfers to early childhood development. Among all the projects, the one that had the most significant impact on me was the project on Adolescent Mental Health in Colombia, with Gautam Rao (UC Berkeley) as one of the PIs. It seeks to evaluate the effects of brief problem-solving therapy sessions on students’ socioemotional skills and long-term economic outcomes. During the project’s early stages, I gained field experience by starting relationships with key stakeholders and coordinating with policymakers. Additionally, my scoping work introduced me to studies in behavioral economics that closely align with my research interests.

I have a solid quantitative foundation, acquired by studying for a BA and an MSc in Economics at EAFIT University in Medellín, Colombia. I graduated at the top of my undergraduate class, 4.67/5.00 GPA with no grade inflation, and my thesis was awarded an Honorable Mention. Nationwide in Colombia, I ranked among the top 1% on the Saber 11 exam (the equivalent of the SAT, taken annually by over 500,000 students, which I took in 2015), as well as in the Saber Pro test (the national mandatory standardized graduate exit exam I took in 2020). My master’s program placed a strong emphasis on quantitative economics, providing me with the opportunity to demonstrate strong mathematical skills. I was thrilled to accept a research professional position and have been working full-time while finishing my master’s. I expect to complete my degree in April 2025; thus, I have not yet received an official ranking.

To summarize, studying at xphx_university would be a fantastic opportunity to further my academic and personal goals. xphx_department distinguishes itself as a place where the faculty’s research interests closely align with my academic pursuits - for example, Professor xphx_professor1 and Professor xphx_professor2. Most importantly, I seek a high-quality learning environment with excellent professors and students to enhance my profile and learn from the leaders in the field. I am certain that pursuing a Ph.D. in Economics at xphx_university will provide the best opportunity to move towards this aim.