

# DONATO ONORATO

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## EDUCATION

**University of Pennsylvania**, Philadelphia, PA

*B.A., Summa Cum Laude* with Distinction in Mathematical Economics

May 2018

GPA: 3.81 • Major GPA: 3.90

## CURRENT POSITION

**Opportunity Insights**, Harvard University

July 2018 – Present

*Pre-Doctoral Fellow*

Professors Raj Chetty, John Friedman and Nathaniel Hendren

- Contributed to Opportunity Insight's ongoing research on economic opportunity in the United States, particularly the group's work on the role of place-based initiatives in improving opportunity
- Worked on developing an instrument that leverages sampling error in the Census Bureau's poverty rates to study place-based policies
- Explored the effects of gentrification and neighborhood change on prior neighborhood resident's outcomes

## RESEARCH EXPERIENCE

**University of Pennsylvania**, Economics Department

May 2017 – May 2018

*Research Assistant*

Professors Hanming Fang and Pinar Yildirim

- Contributed to a research project on characterizing the changing demand of skills in the US labor market, and understanding how technological shocks affect skill demand and labor market outcomes using variation in local industry compositions
- Used Python to perform text analysis of online job postings to identify growing and declining skills over the past 15 years
- Wrote STATA and Python scripts to clean and run statistical analysis on large files containing job posting, IFR robotics, and American Community Survey data to understand how local industry composition and national trends in automation adoption affect demand for certain skills

**University of Pennsylvania**, Economics Department

September 2017 – May 2018

*Teaching Assistant*

Professor Francis X. Diebold

- Collaborated with the professor to develop class materials for ECON 104 (Econometrics)
- Wrote scripts in various programming languages (R, Python, EViews, STATA) to generate empirical examples of theoretical concepts and models covered in class
- Topics include: OLS/LAD/Quantile regression, identifying and handling outliers, addressing structural change (Chow, Quandt-Andrews), diagnosing and addressing serial correlation (ARCH, White's Test, Lagged dependent variables), diagnosing and handling heteroskedasticity (GARCH Model)

**University of Pennsylvania**, Leonard Davis Institute

May 2016 – May 2017

*Research Assistant*

Professors Matthew Grennan and Ashley Swanson

- Contributed to research concerning search costs and price dynamics in healthcare markets and the economic impact of increasing market transparency
- Wrote code in STATA to clean and run statistical analysis on large hospital purchasing datasets
- Assisted with the development of a prediction model to analyze conversion factor validity within datasets

## INDEPENDENT RESEARCH

**University of Pennsylvania**, Economics Department

September 2017 – May 2018

*Undergraduate Honors Thesis*

Advisors: Prof. Jere Behrman, Prof. Hanming Fang

"Robots, Unions, and Aging: Determinants of Robot Adoption Evidence from OECD Countries"

*In recent years there has been a growing concern about the labor market changes due to rapid technological advancement in robotics and artificial intelligence. While much of the work focused on industrial robot adoption has looked at its effects on labor market outcomes, there is little empirical work documenting the determinants of this adoption. I analyze the role that aging, unions, and a reliance on automatable industries play in characterizing robot adoption during the period from 2000 to 2015 in 34 countries within the OECD. To motivate my empirical analysis, I develop a simple two sector model that allows the relative supply of young and old labor to affect robot adoption. Using this model as a foundation, I estimate a significant positive relationship between aging and a negative relationship between unions and industrial robot adoption amongst OECD countries. Based on the model, these estimates suggest that a labor force aging shock would increase the demand for robots. The relationship documented is robust to various time periods, definitions of robot adoption, and characterizations of young and old workers.*

<b>PUBLICATIONS</b>	Onorato, Donato A., “Robots, Unions, and Aging: Determinants of Robot Adoption Evidence from OECD Countries,” <i>Atlantic Economic Journal</i> (2018), vol. 46, no. 4, pp. 473–474. <a href="https://doi.org/10.1007/s11293-018-9599-1">https://doi.org/10.1007/s11293-018-9599-1</a>
<b>PRESENTATIONS</b>	87th International Atlantic Economic Conference, New York City, October 2018.
<b>OTHER EXPERIENCE</b>	<div> <div> <b>University of Pennsylvania</b>, CIS Department  Teaching Assistant  Introduction to Computer Science (CIS 110) <ul style="list-style-type: none"> <li>• Ran weekly office hours to guide students with issues regarding homework and computer science course content</li> <li>• Strengthened my capacity to address, understand, and develop effective strategies regarding student concerns by attending weekly training sessions</li> </ul> </div> <div> <b>Undergraduate Economics Society</b>  Co-President <ul style="list-style-type: none"> <li>• Led the development of the UES website to increase outreach</li> <li>• Directed the goals of the club and oversaw the operations of three committees</li> </ul> </div> </div> <div>September 2016 – September 2017</div> <div>January 2016 – December 2017</div>
<b>AWARDS &amp; HONORS</b>	<div>Dean’s List, University of Pennsylvania</div> <div>Phi Beta Kappa, University of Pennsylvania</div> <div>Finalist, Best Undergraduate Thesis Competition</div> <div>International Atlantic Economic Society. Selected for submission in competition by Economics Department.</div> <div>2015 – 2018</div> <div>2018</div> <div>2018</div>
<b>SKILLS</b>	<b>PROGRAMMING</b> STATA, R, Python, SAS, Java <b>TECHNICAL</b> $\LaTeX$ , Microsoft Office
<b>CLEARANCES</b>	US Census Bureau Special Sworn Status (SSS)