Andrés Aradillas Fernández

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EDUCATION

Cornell University, College of Arts & Sciences, Ithaca, NY   Expected Graduation: May 2025
Bachelor of Arts in Economics & Mathematics
Cumulative GPA: 3.95/4.3; Economics Major GPA: 4.1/4.3; Mathematics Major GPA: 3.7 / 4.3

Related Courses: Theoretical Linear Algebra and Calculus I & II (A,A), Statistics and Probability (A), Intermediate Micro/Macro (A+,A+), Econometrics (A), Intro to Machine Learning (A), Graduate Microeconomic Theory I (A), Intro to Computing Using Python (A-), Graduate Game Theory (Spring 2023), Honors Analysis II (Spring 2023), Statistical Decision Theory (Spring 2023)
Honors & Awards: Dean's List for all semesters • Meinig Family Cornell National Scholar

RESEARCH/ACADEMIC EXPERIENCE

Quantitative Research Fellow, Program for Research in Markets & Organization   June 2022-August 2022
Research Assistant to Professor Kyle Myers, Harvard Business School, Boston, MA
- Analyzed the following research question: What is the effect of clinical trial deaths on innovation?
- Developed R and STATA programs for data cleaning and econometric analysis, leading to a novel dataset
- Implemented synthetic control and synthetic difference-in-differences methods
- Conducted literature reviews to enhance focus of research and complement statistical analysis
- Engaged in weekly research seminars and case studies with HBS faculty and doctoral students, culminating in a final presentation of own research in front of a faculty panel

Research Assistant, Harvard Business School   July 2022-Present
Researcher under Professor Lauren Cohen, Harvard Business School, Boston, MA
- Currently co-writing Harvard Business Review article on family wealth management
- Article will be one in a series of literature used in a Harvard Business School MBA "Family Offices" course

Undergraduate Researcher, Labor Dynamics Institute   January 2022-Present
Researcher under Professor Lars Vilhuber, Cornell University, Ithaca, NY
- Performed data replication tasks using R, STATA, MATLAB, and Python for American Economic Association journals
- Collaborated using the file change tracking software Git, combined with the repository system Bitbucket
- Operated virtual machine systems such as CISER, BioHPC, and CodeSpace
- Improved Git template other researchers use by adding an additional R program and another Python program

Hatfield Undergraduate Research Assistant, Cornell University   October 2022-Present
Research assistant to Professor Francesca Molinari, Cornell University, Ithaca, NY
- Performed literature review of microeconomic theory papers dealing with salience theory
- Utilized knowledge gained in Graduate Microeconomic Theory I
- Compiled literature analysis using LaTeX

Independent Study in Job Searching Platforms   August 2022-December 2022
Completed under Professor Philipp Kircher and Professor Michele Belot, Cornell University, Ithaca, NY
- Analyzed the following research question: How can algorithmic fairness be implemented in a job searching platform?
- Performed a literature review for recent developments in algorithmic fairness research
- Developed Python programs to construct a "toy algorithm" to attempt implementation of various algorithmic fairness principles discovered in literature review
- Conducted weekly presentations of updates to panel of professors, a graduate student, and a research associate

Directed Reading Program – Nonstandard Analysis Applications in Economics   September 2022-December 2022
- Completed a reading and discussion on nonstandard analysis and its economic applications based on Robert Goldblatt's 'Lectures on the Hyperreals: An Introduction to Nonstandard Analysis,' under the guidance of a mathematics PhD student
- Presented a lecture on the construction of the hyperreals and their usage in microeconomic theory to a panel of undergraduate and graduate students, as well as faculty

PROJECTS

Crawler/Web-Scraping
- Developed various programs in Python that use web-scraping methods to generate datasets from online sources
    - Example I: Produces Excel spreadsheet from Top 100 Movies data taken from RottenTomatoes.com
    - Example II: Generates data frame from weather data taken from the National Weather Service

Machine Learning & Data Analysis
- Programmed algorithm that utilizes the Scikit-learn Python package to predict the probability of a movie being rated 'Adult' using data taken from IMDb

- Machine learning methods used include logistic regression and decision trees
- Created STATA programs that use statistical methods, including multivariate linear regression, logit/probit regression, difference-in-differences, Lasso/Ridge regressions, among others

SKILLS

- Computer: Microsoft Office, Excel, LaTeX, GitHub/Bitbucket, Docker, Python, STATA, R, MATLAB (MathWorks certification), HTML/CSS, JavaScript, SQL, CISER, BioHPC, Github Codespaces, CodeOcean
- Knowledgeable in machine learning and data analysis algorithms in Python, including Scikit-learn, Pandas, and NumPy
- Language: Native in English & Spanish, advanced in German, beginner in Swedish, French, Italian

LEADERSHIP EXPERIENCE & ACTIVITIES

Editor-in-Chief   May 2022-Present

Cornell Undergraduate Economic Review, Cornell University, Ithaca, NY

- Managed proof-reading and editing of submitted articles from undergraduates at Cornell and peer institutions (MIT, Duke, UCL, NYU, Northwestern, Harvard, and many others)
- Selected, compiled, marketed, and distributed finalized Fall/Spring editions of the journal

Referee   October 2021-May 2022

Cornell Undergraduate Economic Review, Cornell University, Ithaca, NY

- Reviewed and provided feedback on peer-submitted economic research articles
- Assisted in the selection of articles to be published by the journal

Website Manager   August 2022-Present

International Student Union, Cornell University, Ithaca, NY

- Revise and manage the Cornell International Student Union website, which is hand-coded in HTML/CSS
- Utilize HTML5, CSS, and JavaScript to implement website features, such as updating page information, HTML element animation, and displaying member profile pictures