

# Arnav Sood

October 2023

Ph.D. Student in Economics, Carnegie Mellon University

## Personal

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## Interests

Learning, Game Theory, Macro, Computational

## Computational Skills

Julia, Python/Torch, Shell Scripting, Docker

## Employment

Predoc, University of British Columbia	2018–2020
– Member of <a href="#">Centre for Artificial Intelligence Design and Action</a>	
Lead Developer, QuantEcon	2019–2020
Prior Experience	2014–2018
– Research Assistant to Laura Veldkamp	
– Research Intern, Office of the Comptroller of the Currency	
– Intern, Morgan Stanley	
– Treespace Math/Bio REU (NSF Grant #14-61094)	

## Education

(In-Progress) Ph.D. Economics, Carnegie Mellon University	Expected May 2027
M.S. Economics, Carnegie Mellon University	2021–2023
B.A. Mathematics, New York University	2014–2018
Dual-Enrolled Math Student, Princeton University	2013

## Working Papers

Ebrahimi Kahou, M., Fernández-Villaverde, J., Perla, J. & **Sood, A.** *Exploiting Symmetry in High-Dimensional Dynamic Programming* Working Paper 28981 (National Bureau of Economic Research, July 2021). <http://www.nber.org/papers/w28981>.

## Works in Progress

**Sood, A.** & Best, J. *Frequentist Persuasion*

## Software

[Expectations.jl](#): Expectation operators for distribution objects using Gaussian quadrature.  
[InstantiateFromURL.jl](#): Bind Jupyter notebooks to web-hosted dependency TOML.

## Other Writing

[Optimal Stopping and Linear Complementarity](#). (With Jesse Perla.) QuantEcon Notes.

– [Computational Appendix](#).

[Customer Feedback \(Secondhand Alchemical Goods\)](#). Daily Science Fiction.

## Grants and Awards

Presidential Honors Scholar, New York University	2014
National Merit Scholarship Finalist	2014
Top 16, US National Science Bowl	2013
NJ Governor’s School of Engineering & Technology	2013

## Talks, Panels, and Presentations (Invited Meetings<sup>†</sup>)

2020: JuliaCon (poster and talk, VIRTUAL)

2022: ASSA “What Can AI Do in Economics?” (VIRTUAL), DSE Empirical Market Design<sup>†</sup> (MIT)

2023: PETCO (poster, PENN STATE), DSE Deep Learning<sup>†</sup> (U. LAUSANNE)

## Teaching

TA (CMU)	PhD Computational Methods	2023
TA (CMU)	MBA Statistics Classes	2023
TA (CMU)	PhD Metrics, Macro Sequences	2022, 2023

## Other Activities

Volunteer Tech Support, Free Geek Vancouver

Volunteer Teacher, Splash! (Various Universities)

Mentor, Lumiere Education