





arnav sood

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overview

I am a researcher and programmer working in computational economics. My projects include [codebases](#) for academic papers, open-source [software packages](#), and [lectures](#).

I have extensive experience with differential equations, Julia, and PyTorch. The latter includes logging frameworks, model debugging, execution on cloud instances like Amazon EC2, and additional tools like PyTorch Lightning.

employment affiliations

Consulting Researcher/Programmer June 2020 — Present
Clients Include: UBC, QuantEcon

University of British Columbia June 2018 — June 2020
Predoctoral Fellow, supervised by [Jesse Perla](#)
Guest Lecturer
Member of [Centre for Artificial Intelligence Design and Action](#)

QuantEcon Jan. 2019 — Present
Lead Developer
Worked on lecture content, open-source packages, and infrastructure

publications projects

Exploiting Symmetry in High-Dimensional Dynamic Programming w. coauthors
Uses PyTorch to accelerate the solution of economic models, by embedding economic facts in the neural approximator

[Expectations.jl](#) [Poster](#) from JuliaCon 2020
Provides efficient expectation operators for univariate distributions, using Gaussian quadrature

[InstantiateFromURL.jl](#) [Talk](#) from JuliaCon 2020
Allows Julia notebooks to refer to online dependency information, boosting reproducibility/mobility

[PerlaTonettiVaugh.jl](#)
Julia codebase for AER paper. Solves differential-algebraic system along transition and at steady state

[KnowledgeDiffusionSimulations.jl](#)
Implements large ensemble of jump diffusion equations and track index evolution

activities



Free Geek Vancouver Volunteer Tech Support
Various Publications Published Author, Fiction and Nonfiction

education

University of British Columbia
Economics Courses, June 2018 — June 2020

New York University

B.A. Mathematics, 2018
Minors in Economics, Philosophy

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