





# arnav sood

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arnavs   
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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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