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US citizen

ARNAV SOOD

overview

I am a reseacher and programmer working in computational economics. My projects include codebases for academic papers, open-source software packages, and lectures.

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

employment affiliations

Consulting Researcher/Programmer June 2020 — Present

Clients Include: Passive Holdings, 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

PerlaTonettiWaugh.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 June 2018 — June 2020

Selected Courses, June 2018 — June 2020

New York University

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