October 2023 -

CONTACT Information youngahn@sas.upenn.edu https://bayesiahn.github.io/

EDUCATION

## University of Pennsylvania

Ph.D., Economics, September 2020 -.

(2021–2022: Leave of Absence Due to Military Service in Korea)

## University of British Columbia

B.Sc., Mathematics (with Distinction), May 2015 – May 2017.

B.A., Economics, May 2012 – November 2014.

## Works in Progress

1. Difference-in-Differences with Latent Group Structures (with Hiroyuki Kasahara)

**Presented in:** Labor, Firms, and Macro Reading Group 2023, Califonia Econometrics Conference 2023, CESG 2023\*.

2. From Bytes to Balance: Technology, Skill Accumulation, and Inequality in Competitive Environments

Presented in: AASLE 2023\*.

- 3. Non-Random Exposure to Policy Shocks under Equilibrium Responses (with Francesco Agostinelli)
- 4. Difference-by-Transitions: Theory and Applications
- 5. Finite Mixture Regression Models for Treatment Effect Parameters with Many Regressors (with Hiroyuki Kasahara)

Presented in: EcoSta 2021.

6. Learning How Policymakers Rank

Presented in: CESG 2019.

(\*: Scheduled)

## Software

1. groupdid (with Hiroyuki Kasahara)

R package for difference-in-differences estimation when parallel trends assumptions do not hold. Available at https://github.com/bayesiahn/groupdid.

2. normalregMix (with Hiroyuki Kasahara and Katsumi Shimotsu)

R package for estimation of normal mixture regression models and testing the number of components.

Available at https://github.com/hkasahar/normalregMix.

3. rmswitch (with Hiroyuki Kasahara and Katsumi Shimotsu)

R package for estimation of Markov regime-switching models and testing the number of regimes. Available at https://github.com/chiyahn/rMSWITCH.

4. mixPanel

R package for estimation of dynamic linear mixture panel data models.

Available at https://github.com/chiyahn/mixPanel.

5. SimpleDifferentialOperators.jl (QuantEcon)

Julia package for solving differential equations by numerical discretization. I worked on derivation (with Jesse Perla), implementation, documentation, tutorials, and complete examples.

Available at https://github.com/quantecon/SimpleDifferentialOperators.jl.

RESEARCH EXPERIENCE Research Assistant

Department of Economics, University of Pennsylvania

Supervisor: Andrew Shephard

Contributor January 2019 –

QuantEcon

Numerical solutions for heterogenous agent models in macroeconomics.

Research Assistant July 2019 – June 2020

Vancouver School of Economics, University of British Columbia

Supervisor: Giovanni Gallipolli

Predoctoral Fellow August 2018 – June 2020

Vancouver School of Economics, University of British Columbia

Supervisor: Jesse Perla

Research Assistant June 2017 – July 2018

Bank of Canada Supervisor: Heng Chen

Research Assistant May 2016 – June 2017

Vancouver School of Economics, University of British Columbia

Supervisor: Hiroyuki Kasahara

Research Intern October 2014 – January 2015

Korea Labour & Society Institute

TEACHING Guest Lecturer
EXPERIENCE ECON 628 - T

ECON 628 - Topics in Applied Econometrics I (UBC)

January 2017 - April 2017

Lecture on data analysis and auto-differentiation for second-year graduate students.

Teaching Assistant

ECON 2310 - Econometric Methods and Models (Penn) Fall 2023

Supervisor: Xu Cheng

ECON 4320 - Microeconometrics (Penn) Spring 2023

Supervisor: Petra Todd

ECON 0100 - Introduction to Microeconomics (Penn) Fall 2022

Supervisor: Anne Duchene

CPSC 303 - Numerical Approximation and Discretization (UBC) Spring 2017

PRESENTATION 2023: Labor, Firms, and Macro Reading Group, CESG\*, Penn\*, AASLE\*.

-2022: CESG, Penn.

Selected University of British Columbia

Graduate Computer Science: convex analysis and optimization.

Coursework Mathematics: optimal transportation, graduate real analysis I/II, graduate probability theory

I/II.

Statistics: asymptotic statistics, graduate statistical theory I/II, graduate machine learning theory.

Honours & University of British Columbia

AWARDS Dean's Honour List (x2) 2015 – 2017

NSERC Undergraduate Student Research Awards
NSERC Undergraduate Student Research Awards\*
May 2016
Graduation with Distinction
May 2017

Financial assistantship for the economics MA program in UBC\*

March 2018

(\*: Offered, but declined for another job offer.)

Others

Service for the Republic of Korea Army (Sergeant, served in an artillery battalion) 2020 – 2022

Skills Computer programming:

C/C++, Julia, MATLAB, Python, R, Stata, shell scripting, multi-cluster computing with MPI,

version controls with Git, GNU Make.

Foreign languages:

Korean (native)

Japanese (advanced / certified with JLPT N1; 2022)

Mandarin Chinese (advanced / certified with HSK Level 6; 2020)

Literary Chinese (intermediate)