TOM (HYEON SEOK) YU

CONTACT INFORMATION	Stanford Graduate School of Business 655 Knight Way BC 234H Stanford, CA 94305	*Phone:* (717)462-8204 *Email:* thyu538@gmail.com *Website:* tomhsyu.com

EDUCATION

Stanford University — Stanford, CA
Ph.D. in **Political Economy** — 2017-2019, 2021-2024 (March 2024 Graduation)
Dissertation University Chair: *Matthew Gentzkow*
Dissertation Committee Members: *Neil Malhotra, Ken Shotts, David Broockman*
M.S. in **Statistics** — 2021-2023
Primary Advisor: *Percy Liang*

Middlebury College — Middlebury, VT
B.A. in **Economics**, minor in Political Science, *Summa Cum Laude* — 2012-2016
Class Salutatorian

SKILLS

Programming: R, Python, SQL (Advanced), AWS, Mathematica, Stata, C++ (Intermediate)
Packages: Scikit-Learn, Pandas, Scipi, Numpy, TensorFlow, Keras, Matplotlib
Technical: Causal Inference, Adaptive Experiment (Bayesian Optimization), A/B Testing, Machine·Reinforcement Learning, Natural Language Processing, Survey Research Methods, Game Theory

EMPLOYMENT 3+ YEARS

Experimentation and Causal Inference Intern, Netflix   Los Gatos, CA; Summer 2023
· Developed methods for mitigating non-response bias (via inverse propensity score weighting methods) and improving the representativeness (via entropy balancing) of the large-scale survey data.
· Implemented ML models – GBM, RandomForest, and other ensemble models – to predict survey ratings from users, the prediction of which was leveraged to guide business decisions on objective quality metrics.
· Received the hiring recommendation.

Data & Insights Attaché, Republic of Korea Air Force   Seongnam, Korea; 2019-2021
· Designed and fielded a survey for 5,000 enlistees' mental well-being during the COVID lockdown in the airbase and analyzed them for the airbase commander's office.
· Proposed a base-wide experiment (RCT) for combating the depression issue in the base via incentivized limitation of the cell phone usage during the off-duty hours.

Summer Associate, Yozma Group (VC)   Seoul, Korea; Summer 2019
· Collected and analyzed the financial statement data of over 200 public companies listed in KOSDAQ to construct a benchmark for evaluating values of sourced startups.
· Spearheaded the launch and conducted due diligence for an international fund ($200M USD) with a portfolio of startups in Israel, South Korea, and China.

Analyst, Analysis Group (Econ. Consulting)   Denver, CO; Summer 2015, 2016-2017
· Applied econometric and causal inference methods (Diff-in-Diff and IV) to address the client's request to identify the macroeconomic benefits facilitated by their core product in Latin American countries.
· Implemented a PDF-scraping method on Python to expedite the computation of profit damages and conducted over 150 hours of due diligence for an intellectual property case.

WORKING PAPERS	**Best-Arm Identification in Survey Experiments: Multi-Armed Bandit Algorithms** Adaptive Survey Experiment, Bandit Algorithms, Best-Arm Identification
	Predicting Roll Call Votes using Machine Learning Methods with *Floyd Jiuyun Zhang* US Congress Roll Call Votes, Machine Learning – Ensemble Method
	Analyzing the U.S. Bill Texts: a Deep Learning Approach with *Hyoungju Seo* US Bill Preamble Texts, Deep Learning – CNN-LSTM, Word & Character Embedding
	Electoral Insecurity & Federal Spending Procurement: Causal Inference with Panel Matching and Synthetic Control Methods Panel Matching, Synthetic Control Methods, Difference-in-Differences

TEACHING EXPERIENCE	**GSBGEN 675: Microeconomic Theory (Ph.D.)**	Fall 2021, 2022
	Ph.D. level course based on material from Mas Colell & Whinston & Green (MWG). Instructor: Prof. **Dana Foarta** *Median (Average) student rating of TA: 5.0 (4.9) / 5.0*	
	POLISCI 153Z: Strategy – Introduction to Game Theory	Summer 2022
	Undergraduate level game theory course that covered basic concepts from Nash equilibrium to perfect Bayesian equilibrium. Instructor: Prof. **Avidit Acharya** *Median (Average) student rating of TA: 5.0 (4.5) /5.0*	
	MGTECON 200: Managerial Economics (MBA)	Winter 2022
	MBA introductory microeconomic theory course that covers demand, auction, moral hazard, adverse selection, and game theory. Instructor: Prof.**Weijie Zhong** *Median (Average) student rating of TA: 5.0 (4.6) / 5.0*	

SERVICE TO THE JOURNALS	Referee for: *American Journal of Political Science, Research & Politics*

FELLOWSHIPS, HONORES, AND GRANTS	Stanford American Democracy Fellowship Award ($2K)	2023
	Stanford Ethics, Society, and Technology Hub Research Grant ($10K)	2023
	Institute for Humane Studies Research Grant ($2.5K)	2023
	Stanford GSB PhD Fellowship	2017-19, 2021-Present
	Phi Beta Kappa	2015