# SUKWOONG CHOI

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## ACADEMIC APPOINTMENTS

University at Albany, SUNY

Albany, NY, September 2023 - Present

School of Business

Department of Information Systems and Business Analytics

Business Artificial Intelligence

Assistant Professor

Massachusetts Institute of Technology

Cambridge, MA, July 2021 - August 2023

Sloan School of Management

Initiative on the Digital Economy (IDE)

Computer Science & Artificial Intelligence Laboratory (CSAIL)

Postdoctoral Scholar

University of Southern California

Los Angeles, CA, July 2020 - July 2021

Viterbi School of Engineering

Technology Innovation and Entrepreneurship

Postdoctoral Scholar

University of Kentucky

Lexington, KY, July 2019 - June 2020

Gatton College of Business and Economics

Department of Management

Postdoctoral Scholar

## AFFILIATIONS & PROFESSIONAL SERVICE

Information Science, University at Albany, SUNY, Faculty Affiliate

2023-

MIT Sloan School of Management, Research Fellow

2023-

# RESEARCH INTERESTS

- [1] Research Topics: Innovation, Entrepreneurship, and Economics of Artificial Intelligence (AI)
- [2] Methodologies: Econometrics, Big-Data Analysis, Machine Learning, and Social Network Analysis

# **EDUCATION**

KAIST (Korea Advanced Institute of Science and Technology) Daejeon, Korea, June 2019 Ph.D., School of Business and Technology Management, College of Business

#### Northwestern University

Evanston, IL, Jan 2019 - Mar 2019

Kellogg School of Management, Management of Organizations (MORS)

Visiting Ph.D. Student (Sponsored by Professor Hyejin Youn)

# University of California, Berkeley

Berkeley, CA, Jan 2018 - June 2019

Haas School of Business, Management of Organizations (MORS)

Visiting Ph.D. Student (Sponsored by National Research Foundation of Korea)

#### SELECTED WORKING PAPERS

- [1] How Does AI Improve Human Decision-Making? Evidence from the AI-Powered Go Program (with H. Kang, N. Kim, and J. Kim) Revise and Resubmit
- Winner for the Best Interdisciplinary Paper Award Strategic Human Capital in the SMS 2021
- Media Cover: MIT IDE Blog, State of AI Report 2021, The Chosun Ilbo (Leading Korean Daily Newspaper)
- [2] It Ain't Over 'Til It's Over: Post-IPO VC Ownership Effect on Innovation-Enhancing Investment of Newly Public Firms (with T. Kim and H. Woo) Revise and Resubmit
- [3] Quantum Economic Advantage: A Framework for CXOs (with N. Thompson, P. Shukla, and C. Dukatz) Submitted
- Media Cover: MIT IDE Blog
- [4] The Quantum Tortoise and the Classical Hare: An analysis of which problems quantum computing will accelerate (and which it won't) (with W. Moses and N. Thompson) Submitted
- Media Cover: Yahoo Finance, MIT IDE Blog, MIT Sloan News

#### ONGOING RESEARCH PROJECTS

- [1] Stay the Course? The Effects of Government Matching R&D Funding on Tech Startups (with Y. Lee, T. Kim, and W. Kim) Working Paper
- [2] Standing on the Shoulders of AI? Knowledge Creation by Learning from AI (with H. Kang, N. Kim, and J. Kim) Working Paper
- Finalist for the Best Paper of the 2023 Conference on Information Systems and Technology (CIST)
- [3] How Does Competition Affect AI Investment in Firms? Evidence from a Quasi-Natural Experiment in the United States (with T. Kim and G. Park) Writing a Draft
- [4] How Does AI Improve Human Collaboration and Performance? Evidence from AI-powered X-ray Triage in University Hospitals (with H. Kang and N. Kim) Data Analysis

# REFEREED JOURNAL ARTICLES

- [1] When Does AI Payoff?: AI-Adoption Intensity, Complementary Investments, and R&D Strategy (with T. Kim, W. Kim, and Y. Lee (*Equally contributed*)) *Technovation*, 2022
- Media Cover: MIT Sloan, MIT IDE Research in Brief
- [2] International Alliance Formation: The Effect of Technology Competition Networks (with N. Kim and W. Kim) *Journal of Business Research*, 2022
- [3] Are Social Entrepreneurs More Risk-Averse? (with N. Kim and W. Kim)  $Applied\ Economics\ Letters,\ 2019$
- [4] An Empirical Study on Successful Crowdfunding (with D. Lee, J. Kim, and W. Kim) Asia-Pacific Journal of Business Venturing and Entrepreneurship (KCI), 2017 (Written in Korean / Winner of the Best Paper Award)

#### BOOK CHAPTERS

[1] Choi, Sukwoong. How is Artificial Intelligence Affecting Individuals and Organizations? In Digital Power 2023: A Future Society Led by Digital Innovation. HadA Press. 2022. (Written in Korean)

#### INVITED PRESENTATIONS, CONFERENCES, AND ACADEMIC PROGRAMS

2023-Present (includes scheduled): University at Albany, SUNY; Stonybrook University, SUNY; Imperial College London; Economics of Quantum Information Technology Conference; Druid 2023; AOM Annual Meetings; International Conference on Science of Science and Innovation (ICSSI); Conference on Information Systems and Technology (CIST); Informs Annual Meetings; 2023 Conference on Artificial Intelligence, Machine Learning, and Business Analytics;

2022: Yonsei University; 3rd AI and Strategy Consortium; IP and Innovation (IPI) Seminar; the 2022 Wharton Technology and Innovation Conference; The Artificial Intelligence for Good Group (meetup, New York); 1st Wharton/Columbia Management, Analytics, and Data (MAD) Conference; Samsung Advanced Institute of Technology (Targeted to Vice Presidents of Technology); the Work in the Age of Intelligent Machine (WAIM) Summer Conference; Carnegie School of Organizational Learning (CSOL) Academy; NBER Innovation Research Boot Camp; AOM Annual Meetings; STR Dissertation Consortium; Transatlantic Quantum Forum; Northwestern University (Center of Science & Innovation (CSSI)); Bocconi University; Stevens of Institute Technology; 2022 Conference on Artificial Intelligence, Machine Learning, and Business Analytics; Cancelled due to Covid-19: 15th Digital Economics Conference (Toulouse, France); Could not attend due to Covid-19: the 5th Vienna Conference on Strategy, Organizational Design, and Innovation

**2021**: NBER Economics of Artificial Intelligence Conference; MIT IDE Fall Seminar; AOM Annual Meetings; SMS Annual Conference; Conference on Artificial Intelligence, Machine Learning, and Business Analytics; Yonsei University; NBER Doctoral Student Workshop on Economics of Artificial Intelligence; Could not attend due to Covid-19: DRUID (Copenhagen, Denmark)

2019-2020 & Before: AOM Annual Meetings (2020, 2017); SMS Annual Conference (2019, 2017); University of Kentucky Colloquium (2019); NBER Entrepreneurship Bootcamp (2018); STR Managing Your Dissertation Workshop (2018); INSEAD Doriot Entrepreneurship Conference (Poster, 2018); TIM Doctoral Student Consortium (2017); MIS summer program at Harbin Institute of Technology (2017); KAIST College of Business Colloquium (2017)

# HONORS, GRANTS, AND FELLOWSHIPS

- [1] Co-investigator, Finance, Competitiveness & Innovation Global Practice, World Bank Group
- "The Effects of Government Matching R&D Funds on Tech Startups: The Case of Korea's TIPS Program" (with Y. Lee, T. Kim, and W. Kim) (2022-2023) (\$20,000)
- [2] Co-principal investigator, USC Marshall Institute for Outlier Research in Business Grant Program
- "How Does AI Improve Human Decision-Making and Performance? Evidence from AI-powered X-ray Triage in University Hospitals" (with H. Kang and N. Kim) (2022-2023) (\$19,400)
- [3] NBER Grant for Summer Innovation Boot Camp (2022) (\$2,000)
- [4] Winner, Best Interdisciplinary Paper Award (Strategic Human Capital IG), SMS Conference (2021)
- [5] Kauffman Foundation Entrepreneurship Research to Practice Bootcamp (2020) (\$3,000) Cancelled due to Covid-19
- [6] NBER Grant for Summer Entrepreneurship Boot Camp (2018) (\$1,000)
- [7] National Research Funding (NRF) of Korea Fellowship for Social Science Korea All but Dissertation (2017) (\$22,000)
- [8] Winner, Best Paper Award, Asia-Pacific Journal of Business Venturing and Entrepreneurship (2017)
- [9] KAIST, College of Business Graduate Fellowships (2012-2016)

#### TEACHING EXPERIENCE

Mathematical Methods for Information Security (Graduate Course Instructor at Massey School of Business) Fall 2023, Rating 4.7/5

Open Source Intelligence and Social Network Analysis (Graduate Course Instructor at Massey School of Business) Fall 2023, Rating 4.5/5

Managing Social and Organizational Networks (Undergraduate Course Instructor at Gatton B-School) Spring 2020, Rating 4.2/5

Social Dynamics and Network Analysis (MBA Course TA at Kellogg B-School) Winter 2019

Innovation and Technology Management (Graduate Course TA) Spring 2016, Fall 2016

Econometrics (Undergraduate Course TA) Spring 2015, Fall 2015

Organization Theory (Graduate Course TA) Spring 2014

Research Methodology I (Graduate Course TA) Spring 2013, Fall 2013

#### **OTHERS**

# Research Assistantship

RA for Abhishek Nagaraj, Assistant Professor of UC Berkeley, Mar. 2018 - Dec. 2018

Project Name: Improving Data Access Democratizes and Diversifies Science. Published at Proceedings of the National Academy of Sciences (PNAS, A. Nagaraj, E. Shears, and M. de Vaan, 2020).

#### **Programming**

Languages: R, Python, Java Statistical packages: Stata

Network Analysis: iGraph (R/Python), NetworkX (Python), UCINET, Gephi

#### Academic Service

Peer-Review Journal Referee: Journal of Business Venturing, Journal of Economic Growth, Journal of Strategy and Management, Applied Economics Letters, the Journal of the Royal Statistical Society: Series A

Peer-Review Grant Referee: Swiss National Science Foundation

Academy of Management, STR, ENT, and TIM Reviewer 2016-2021

SMS Annual Conference Reviewer 2022

#### Support for Holding Academic Conferences

the 2015 AIEA-NBER conference, the 2022 Workshop on the Computational Foundations of Prosperity

## Military Service

Serving military service at KAIST as the Technical Research Personnel for 3 years (2014-2016)

# REFERENCES

Neil Thompson, Sloan School of Management and CSAIL, MIT, neil-t@mit.edu

Yong Suk Lee, Technology, Economy, and Global Affairs, University of Notre Dame, yong.s.lee@nd.edu Hyo Kang, Marshall School of Business, University of Southern California, hyokang@marshall.usc.edu Wonjoon Kim, College of Business, KAIST, wonjoon.kim@kaist.edu

Namil Kim, Department of Advanced Industry Fusion, Konkuk University, namilkim@konkuk.ac.kr

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