

# SUKWOONG CHOI

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## ACADEMIC APPOINTMENTS

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**Massachusetts Institute of Technology**

Cambridge, MA, July 2021 - Present

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

## RESEARCH INTERESTS

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[1] Research Topics: Innovation, Entrepreneurship, and Economics of Artificial Intelligence (AI)

[2] Methodologies: Econometrics, Big-Data Analysis, Machine Learning, and Social Network Analysis

## EDUCATION

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**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)

**KAIST (Korea Advanced Institute of Science and Technology)**

Daejeon, Korea, Feb 2012

B.S. Mathematical Science, B.E. Management Science

## SELECTED WORKING PAPERS

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[1] How Does AI Improve Human Decision-Making? Evidence from the AI-Powered Go Program (with N. Kim, J. Kim, and H. Kang) *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] The Dynamics of Entrepreneurship Research: A Topic Modeling Analysis and Research Agenda (with W. Kim and K. Lee) *Reject and Resubmit*

## ONGOING RESEARCH PROJECTS

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- [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*, to be submitted to *Research Policy*
- [2] Practical Quantum Computing is about—More Than Just Hardware (with K. Greene, P. Shukla, and N. Thompson) *Working Paper*, to be submitted to *Sloan Management Review*
- [3] Standing on the Shoulders of AI? Knowledge Creation by Learning from AI (with H. Kang, N. Kim, and J. Kim) *Data Analysis*, to be submitted to *Management Science*
- [4] Algorithmic Patents, Algorithm Improvements and Firm Value (with N. Ahmed and N. Thompson) *Data Analysis*, to be submitted to *Strategic Management Journal*
- [5] Which problems will quantum computing accelerate (and which won't it)? (with W. Moses and N. Thompson) *Writing a Draft*, to be submitted to *Science*
- [6] 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 Collection After Passing IRB Review*

## SELECTED REFEREED JOURNAL ARTICLES

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- [1] International Alliance Formation: The Effect of Technology Competition Networks (with N. Kim and W. Kim) *Journal of Business Research*, 2022
- [2] 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
- [3] 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

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- [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

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**2022-Present** (includes scheduled): 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; TEDxGateway Webinar Series; Northwestern University (Center of Science of Science & Innovation (CSSI)); 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*

**2020-2021:** 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

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- [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

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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

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### 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 Strategy and Management, Applied Economics Letters, Journal of Economic Growth  
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 a military service at KAIST as the Technical Research Personnel during 3 years (2014-2016)

## **REFERENCES**

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Neil Thompson, Initiative on the Digital Economy, MIT, neil\_t@mit.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

Yong Suk Lee, Technology, Economy, and Global Affairs, University of Notre Dame, yong.s.lee@nd.edu

Namil Kim, School of Management, Harbin Institute of Technology, namil.kim@hit.edu.cn

Last Updated: November 24, 2022