Hyunuk Kim

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(Updated on July 31, 2025)

ACADEMIC POSITIONS

Elon University, Elon, NC, USA

Assistant Professor of Business Analytics, Martha and Spencer Love School of Business	Aug 2023 – Present
Director, Center for Organizational Analytics	Aug 2024 – Present
Associate Director, Center for Organizational Analytics	Oct 2023 – Jul 2024

Boston University, Boston, MA, USA

Assistant Professor of Administrative Sciences, Metropolitan College	Jul 2021 – Jun 2023
(Faculty in the Applied Business Analytics program)	
Postdoctoral Associate, Information Systems, Questrom School of Business	Aug 2019 – Jun 2021
(Affiliated with the Institute for Health System Innovation & Policy)	
Advisor: Dylan Walker	

Northwestern University, Evanston, IL, USA

Visiting Predoctoral Fellow, Management & Organizations, Kellogg School of Management	Jan 2018 – Jul 2019
(Affiliated with the Northwestern Institute on Complex Systems)	
Advisor: Hyejin Youn	

EDUCATION

Pohang University of Science and Technology (POSTECH), Pohang, Republic of Korea

Ph.D. in Industrial and Management Engineering	Sep 2016 – Aug 2019
Advisor: Woo-Sung Jung	
Dissertation: Collective Patterns and Dynamics of Knowledge Creation	
M.S. in Industrial and Management Engineering	Sep 2014 – Aug 2016
B.S. in Mathematics (Minor in Industrial and Management Engineering)	Mar 2007 – Feb 2013

RESEARCH INTERESTS

Business Analytics (network science, machine learning, natural language processing)

Misinformation (social media, healthcare, intervention, spreading dynamics)

Innovation (technological change, foresight, artificial intelligence)

Computational Social Science (collective learning, collaboration, career trajectory)

PUBLICATIONS

Kim, Hyunuk. "Global mobility of the recent STEM postdoctoral workforce registered in ORCID." *Quantitative Science Studies* 6 (2025): 119-130. https://doi.org/10.1162/qss_a_00341

Jo, Seonbin, Woo-Sung Jung, and Hyunuk Kim. "Wallets' explorations across non-fungible token collections." *Scientific Reports* 14 (2024). https://doi.org/10.1038/s41598-024-78379-2

Kim, Hyunuk, Chris R. Proctor, Dylan Walker, and Ronan R. McCarthy. "Understanding the Consumption of Antimicrobial Resistance–Related Content on Social Media: Twitter Analysis." *Journal of Medical Internet Research* 25 (2023): e42363. https://doi.org/10.2196/42363

Yoon, Jisung, Woo-Sung Jung, and Hyunuk Kim. "COVID-19 confines recreational gatherings in Seoul to familiar, less crowded, and neighboring urban areas." *Humanities and Social Sciences Communications* 9 (2022). https://doi.org/10.1057/s41599-022-01349-4

Kim, Munjung, Jisung Yoon, Woo-Sung Jung, and Hyunuk Kim. "Quantifying the topic disparity of scientific papers." In *Companion Proceedings of the Web Conference 2022* (2022). https://doi.org/10.1145/3487553.3524655

Kim, Hyunuk, and Dylan Walker. "Leveraging volunteer fact checking to identify misinformation about COVID-19 in social media." *Harvard Kennedy School Misinformation Review* 1, no. 3 (2020). https://doi.org/10.37016/mr-2020-021
  - This paper partly inspired Twitter to launch Birdwatch, a community-driven approach to tackling misinformation
  - Media coverage: The Communication Initiative Network

Kim, Hyunuk, Sang-Jin Ahn, and Woo-Sung Jung. "Horizon scanning in policy research database with a probabilistic topic model." *Technological Forecasting and Social Change* 146 (2019). https://doi.org/10.1016/j.techfore.2018.02.007

Kim, Hyunuk, Inho Hong, and Woo-Sung Jung. "Measuring national capability over big science's multidisciplinarity: A case study of nuclear fusion research." *PLoS One* 14, no. 2 (2019). https://doi.org/10.1371/journal.pone.0211963

Kim, Hyunuk, and Woo-Sung Jung. "Does pitch type-zone uncertainty matter to pitcher's performance?." *New Physics: Sae Mulli* 68, no. 6 (2018): 624-629. https://doi.org/10.3938/NPSM.68.624
  - Media coverage: Chosun Biz, Maeil Shinmun, Seoul Traffic Broadcasting System

Kim, Hyunuk, Taekho You, Sang-Jin Ahn, and Woo-Sung Jung. "Embracing networks of national policy research in future foresight." *International Journal of Knowledge-Based Development* 7, no. 2 (2016).

Kim, Hyunuk, and Woo-Sung Jung. "Bibliometric analysis of collaboration network and the role of research station in Antarctic science." *Industrial Engineering & Management Systems* 15, no. 1 (2016): 92-98. https://doi.org/10.7232/iems.2016.15.1.092

Kim, Hyunuk, Sang-Jin Ahn, and Woo-Sung Jung. "A study on technology forecasting based on co-occurrence network of keyword in multidisciplinary journals." *Journal of the Korean Operations Research and Management Science Society* 40, no. 4 (2015): 49-63. (In Korean) https://doi.org/10.7737/JKORMS.2015.40.4.049

WORKING PAPERS

Lee, Jennifer, and Hyunuk Kim. "Conceptual articles may disrupt the field of marketing: Evidence from a GPT-assisted study." (https://doi.org/10.48550/arXiv.2308.14724)

Kim, Hyunuk, Dylan Walker. "A Wikidata-based model for website domain classification and its application to user-generated content."

Kim, Hyunuk, Marcus J. Hamilton, Woo-Sung Jung, and Hyejin Youn. "Deeply nested structure of mythological traditions worldwide." (https://arxiv.org/abs/2408.07300)

TALKS

Global mobility of the STEM postdoctoral workforce registered in ORCID — July 1, 2024
3rd International Conference on Science of Science and Innovation, Washington DC, USA

The consumption of scientific information on social media — Mar 21, 2024
Elon Faculty Scholarship Lunch & Learn, Elon University, NC, USA

Engineering-minded approaches to societal issues — Jan 4, 2024
Invited Talk, Department of Industrial and Management Engineering, POSTECH, Korea

Spotting global warming misinformation from replies on social media — Sep 22, 2022
World Knowledge Forum 2022, Seoul, Korea

Understanding the consumption of antimicrobial resistance related content on social media — Jul 22, 2022
8th International Conference on Computational Social Science, Chicago, IL, USA

Quantifying the topic disparity of scientific articles — Apr 26, 2022
2nd International Workshop on Scientific Knowledge, The Web Conference 2022 (Online)

Assessing the hierarchy of human urban dynamics and the effect of the external shock — Jul 5, 2021
Networks 2021 (Online)

Data-driven representations of scientific specialization and urban resilience — Mar 18, 2021
Invited Talk, Department of Geography, University of Hong Kong, Hong Kong

Data science meets ancient narratives — Jul 15, 2020
IBS/POSTECH Seminar on Data Science and Complexity in Social Systems, Korea

Growing network model for knowledge space: micro to macro views — Jan 04, 2019
Dynamics Days 2019, Evanston, IL, USA

Reconstructing technology space from a secret recipe of high impact innovation — Jul 15, 2018
4th International Conference on Computational Social Science, Evanston, IL, USA

The structure of mythologies explains early human migrations out of Africa — Jul 13, 2018
4th International Conference on Computational Social Science, Evanston, IL, USA

Building technology space from microscopic dynamics to macro structure — Sep 20, 2017
Conference on Complex Systems 2017, Cancun, Mexico

The structure of mythologies explains the human expansion out of Africa — Sep 20, 2017
Conference on Complex Systems 2017, Cancun, Mexico

Fusion of nations, fusion of disciplines: network evolution in nuclear fusion research — Sep 20, 2016
Conference on Complex Systems 2016, Amsterdam*,* Netherlands

GRANTS & HONORS

GRANTS
Elon Innovation Grant, Elon University, NC, USA — Jan 2024 – Dec 2025
("Computational Social Science Initiative at Elon", $5,000)

Focused Research Program, BU ISE & The Hariri Institute for Computing, MA, USA   Jul 2022 – Jun 2023
  (A contributor to the collaborative proposal "Data and Misinformation in an Era of Sustainability and
  Climate Change Crises", ca. $120,000)
Nonprofit Startup Incubator Program, Seoul NPO Center, Republic of Korea   Jun 2018 – Dec 2018
  ("Prisming: Blockchain for in-kind donation", ca. $4,000)

FELLOWSHIPS
Global Ph.D. Fellow, National Research Foundation, Republic of Korea   Mar 2017 – Aug 2019
  ("Evolutionary dynamics of technological innovation", ca. $60,000)
Creative KISTEP Fellow, KISTEP, Republic of Korea   Apr 2017 – Aug 2017
  ("Analyzing S&T knowledge structure by community detection in multislice network", ca. $1,500)
Asan Young Fellow, Asan Institute for Policy Studies, Republic of Korea   Apr 2013 – Dec 2013

HONORS
First Prize, Ph.D. Student Research Competition, Department of IME, POSTECH   Jan 2017
Excellence Award, Master's Student Research Competition, KIIE Fall Conference 2016   Nov 2016
Encouraging Paper, SOItmC & Knowledge Cities World Summit 2015   Jun 2015

TEACHING & ADVISING

TEACHING
Elon University, USA
    Data Wrangling (MGT4110), Data Visualization and Storytelling (MGT4250), Healthcare Information Systems
    (HCA5210)
Boston University, USA
    Business Analytics Foundations (AD571), Enterprise Risk Analytics (AD616), Data Mining for Business
    Analytics (AD699), Neural Networks for Business Applications (AD799)

COURSE DEVELOPMENT
Healthcare Information Systems, Elon University, USA
Neural Networks for Business Applications, Boston University, USA
Python and Neural Networks, Boston University, USA (with Dylan Walker; https://github.com/dylanwalker/BA865)

ADVISING IN RESEARCH
Elon University, USA – Rafi Dahdal
Boston University, USA – Jiaqi Li, Yanru Zhou, Yunlou Teng, Luyao Yang, ZiHui Gan, Lu-Chieh Chen, Qingkai Wu,
    Yijing Gu, Xiaoyun Li, Yixiao Wang, Taehoon Kim, Jacob Raillon, Haotian Gu, Janani Jayesh, Wenqiang Gao
POSTCH, Republic of Korea –Jisung Yoon, Munjung Kim, Jungmin Kwon, Joo Hong Min