

# Hyunuk Kim

600 Foster Street, Evanston, IL 60208, USA  
hyunuk\_kim@postech.ac.kr • +1 (224) 307-0821 •  
<http://hkim07.github.io>

EDUCATION	<b>Pohang University of Science and Technology (POSTECH)</b> , Pohang, Republic of Korea	
	▪ Ph.D. Candidate in Industrial and Management Engineering	Sep 2016 – Present
	• Advisor: Prof. Woo-Sung Jung	
	▪ 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	Computational Social Science (collective learning, collaboration) Network Science (growth model, community structure) Innovation (foresight, technological change, evolutionary dynamics) Blockchain (decentralized applications to donation, market ecosystem)	
ACADEMIC POSITIONS	<b>Kellogg School of Management, Northwestern University</b> , Evanston, IL, USA (affiliated with Northwestern Institute on Complex Systems)	
	▪ Visiting Pre-Doctoral Fellow	Jan 2018 – Feb 2019
	• Advisor: Prof. Hyejin Youn	
	<b>Santa Fe Institute</b> , Santa Fe, NM, USA	
	▪ Visiting Student Researcher	Feb 2016 – Mar 2016
	Finding patterns in a high-dimensional sparse data of world mythologies	
PUBLICATIONS	Hyunuk Kim, Sang-Jin Ahn, and Woo-Sung Jung, “Horizon scanning in policy research database with a probabilistic topic model”, <i>Technological Forecasting &amp; Social Change</i> , in press.	
	Hyunuk Kim and Woo-Sung Jung, “Does pitch type-zone uncertainty matter to pitcher’s performance?”, <i>New Physics: Sae Mulli</i> , vol. 68, no. 6, 2018.	
	Hyunuk Kim, Taekho You, Sang-Jin Ahn, and Woo-Sung Jung, “Embracing networks of national policy research in future foresight” <i>International Journal of Knowledge-Based Development</i> , vol. 7, no. 2, pp. 107–124, 2016.	
	Hyunuk Kim and Woo-Sung Jung, “Bibliometric analysis of collaboration network and the role of research station in Antarctic science” <i>Industrial Engineering &amp; Management Systems</i> , vol. 15, no. 1, pp. 92–98, 2016.	
	Hyunuk Kim and Sang-Jin Ahn, Woo-Sung Jung, “A study on technology forecasting based on co-occurrence network of keyword in multidisciplinary journals” <i>The Korean Operations Research and Management Science Society</i> , vol. 40, no. 4, pp. 49–63, 2015.	
WORKING PAPERS	Hyunuk Kim, Inho Hong, and Woo-Sung Jung, “Measuring national capability over big science’s multidisciplinary: A case of nuclear fusion research”, under review, <i>PLoS One</i> .	
	Hyunuk Kim, Daniel Kim, Young-Ho Eom, Hawoong Jeong, Woo-Sung Jung, and Hyejin Youn, “Building knowledge space from microscopic behaviors to macro structure”	
	Hyunuk Kim, Marcus J. Hamilton, Woo-Sung Jung, and Hyejin Youn, “The deep structure of global mythologies”	
HONORS & AWARDS	<b>HONORS</b>	
	▪ 2017 Global PhD Fellow, Ministry of Education, Republic of Korea	Mar 2017 – Feb 2020
	National PhD fellowship program for accepted research proposals. Project: “Evolutionary dynamics of technological innovation”	
	▪ Creative KISTEP Fellow, KISTEP, Republic of Korea	Apr 2017 – Aug 2017
	(KISTEP: Korea Institute of S&T Evaluation and Planning)	
	Project: “Analyzing S&T knowledge structure by community detection in multislice network”	

- Asan Young Fellow, Asan Institute for Policy Studies, Republic of Korea Apr 2013 – Dec 2013  
Education program for Philosophy, Politics, and Economics.  
Internship at American Association for the Advancement of Science (AAAS), USA

#### AWARDS

- Nonprofit Startup Incubator Program, Seoul NPO Center Jun 2018 – Dec 2018  
Prisming: Blockchain for in-kind donation
- First Prize, Graduate Research Contest, Industrial and Management Engineering, POSTECH 2017
- Excellence Award, The 12th Master's Student Research Contest, KIIE Fall Conference 2016 2016  
(KIIE: Korean Institute of Industrial Engineers)
- Encouraging Paper Award, SOItmC & Knowledge Cities World Summit 2015 2015

<b>PRESENTATIONS</b>	Growing network model for knowledge space: micro to macro views <i>Dynamics Days 2019</i> , Evanston, USA	04 Jan 2019
	Reconstructing technology space from a secret recipe of high impact innovation <i>4th Annual International Conference on Computational Social Science</i> , Evanston, USA	15 Jul 2018
	The structure of mythologies explains early human migrations out of Africa <i>4th Annual International Conference on Computational Social Science</i> , Evanston, USA	13 Jul 2018
	Building technology space from microscopic dynamics to macro structure <i>Conference on Complex Systems 2017</i> , Cancun, Mexico	20 Sep 2017
	The structure of mythologies explains the human expansion out of Africa <i>Conference on Complex Systems 2017</i> , Cancun, Mexico	20 Sep 2017
	Measuring the impact of Tesla's open patents on electric vehicle market <i>Korean Institute of Industrial Engineers Fall Conference 2016</i> , Seoul, Republic of Korea	19 Nov 2016
	Fusion of nations, fusion of disciplines: network evolution in nuclear fusion research <i>Conference on Complex Systems 2016</i> , Amsterdam, Netherlands	20 Sep 2016
	Predicting future issues with keyword network of national policy research <i>SOItmC &amp; Knowledge Cities World Summit 2015</i> , Daegu, Republic of Korea	16 Jun 2015
<b>EXPERIENCES</b>	Co-founder, Prisming: Blockchain for in-kind donation, Republic of Korea	2018
	Research Intern, American Association for the Advancement of Science (AAAS), USA	2013
	Military Service, Republic of Korea Marine Corps, Republic of Korea	2011 – 2012
<b>REFERENCES</b>	<ul style="list-style-type: none"> <li>▪ Dr. Woo-Sung Jung, <i>Associate Professor</i> Department of Industrial and Management Engineering / Physics Pohang University of Science and Technology, Pohang 37673, Republic of Korea wsjung@postech.ac.kr</li> </ul>	
	<ul style="list-style-type: none"> <li>▪ Dr. Hyejin Youn, <i>Assistant Professor</i> Management &amp; Organizations Department at Kellogg School of Management Northwestern University, Evanston, IL 60208, USA hyejin.youn@kellogg.northwestern.edu</li> </ul>	
	<ul style="list-style-type: none"> <li>▪ Dr. Marcus J. Hamilton, <i>Associate Professor of Data Analytics</i> Department of Anthropology University of Texas at San Antonio, San Antonio, TX 78249, USA marcus.hamilton@utsa.edu</li> </ul>	

[Dated: 2018-12-26]