Robin Na

MIT Sloan School of Management

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Research Interests

Large Language Models, Knowledge Retrieval, Metascience, Human-AI Decision-Making

Education

Massachusetts Institute of Technology **Cambridge, MA**
Ph.D. Candidate in Information Technology 2022 – Present
MicroMasters in Statistics and Data Science

Seoul National University **Seoul, South Korea**
B.S. in Physics & B.A. in Knowledge Ecology (student-designed major) 2021
  – *Summa Cum Laude*, Valedictorian (Dean's Award)

Research Experience

Amazon Search AI **Palo Alto, CA**
Applied Scientist Intern — LLM+RAG for predicting heterogeneous treatment effects 2024

Amazon Alexa AI **Seattle, WA**
Applied Scientist Intern — social network analysis and link prediction 2023

Carnegie Mellon University **Pittsburgh, PA**
Predoctoral Researcher, Laboratory for Social Minds (PI: Simon DeDeo) 2021 – 2022

New England Complex Systems Institute **Cambridge, MA**
Undergraduate Researcher (Mentors: Alexander Siegenfeld, Yaneer Bar-Yam) 2020 – 2021

Arizona State University — Santa Fe Institute Center for Complex Systems **Tempe, AZ**
Undergraduate Researcher (Mentor: Bryan Daniels) 2020

Seoul National University **Seoul, South Korea**
Undergraduate Researcher, Big Data Studies Lab (PI: Javier Cha) 2019
Undergraduate Researcher, Human-Centered Computing Lab (PI: Bongwon Suh) 2019

Korea Advanced Institute of Science and Technology **Daejeon, South Korea**
Undergraduate Researcher, Complexity and Network Science Group (PI: Juyong Park) 2019

Awards and Fellowships (Selected)

o Best Paper Awards
  1. First Place, Seoul National University Presidential Award for Undergraduate Research 2021
  2. First Place, Seoul National University College of Liberal Studies Academic Research Festival 2020
  3. First Place, Seoul National University College of Liberal Studies Academic Research Festival 2019

o Fellowships and Grants
  1. SBS Foundation Graduate Scholarship (one of 3 STEM recipients in South Korea) 2022 – 2028
  2. MIT Sloan PhD Fellowship 2022 – 2027
  3. Seoul National University Undergraduate Research Grant 2020
  4. Seoul National University Student-Designed Major Scholarship 2019 – 2021
  5. Republic of Korea Presidential Science Scholarship in Physics (full tuition + stipend) 2015 – 2021

- Teaching and Service Awards
  1. Seoul National University Volunteer Service Award for Teaching North Korean Students   2020

Publications

- Work in Progress
  1. "Language Models as Tools for Research Synthesis and Evaluation" **Robin Na**, Abdullah Almaatouq.
  2. "Self-similarity in pandemic spread and fractal containment policies." Alexander F. Siegenfeld, Asier Piñeiro Orioli, **Robin Na**, Blake Elias, Yaneer Bar-Yam.

- Journal Articles (Peer-Reviewed)   *Equal Contributions
  1. "Snakes or Ladders? Measuring the Intergenerational Performance of Chosŏn's Munkwa Exam Candidates." **Robin W. Na***, Javier Cha*. *International Journal of Korean History*. 2021.

- Conference Proceedings (Refereed Full Paper)
  1. "The Diversity of Argument-Making in the Wild: from Assumptions and Definition to Causation and Anecdote in Reddit's 'Change My View.'" **Robin W. Na**, Simon DeDeo. *Proceedings of the 44th Annual Conference of the Cognitive Science Society*. 2022. [acceptance rate 27%, average reviewer score 4.33/5]
  2. "Multi-level Co-authorship Network Analysis on Interdisciplinarity: A Case Study on the Complexity Science Community." **Robin W. Na**, Bongwon Suh. *Proceedings of the 10th International Conference on Complex Systems* Springer, Cham. 2020.

Invited Conference Presentations

– INFORMS Annual Meeting (2024)
– AI for Science Workshop at the International Conference on Machine Learning (ICML 2024)
– International Conference on Computational Social Science (IC^{2}S^2 2024)
– International Conference on the Science of Science and Innovation (ICSSI 2024)
– ACM Collective Intelligence Conference (ACM CI 2024)
– Annual Conference of the Cognitive Science Society (CogSci 2022)
– Cultural Evolution Society Conference (CES 2021)
– International School and Conference on Network Science (NetSci 2020)
– International Conference on Complex Systems (ICCS 2020)
– Graph Technologies in Digital Humanities (2020)

Workshops Invited and Participated

- Santa Fe Institute Complexity-GAINs Summer Institute on Intelligence & Representation   2023
- Theoretical Organizational Models (TOM) Summer School at Harvard Business School   2023

Teaching Experience

- **Massachusetts Institute of Technology**
  1. Teaching Assistant, Digital Revolution: From Foundations to Future Trends (15.561)   Fall 2024
  2. Teaching Assistant, Action Learning Seminar on Analytics (A-Lab; 15.572)   Fall 2023, 2024

Service

- Chairperson, Student Education Committee at Seoul National University (2016)