
Positions

Fall 2025 **Assistant professor** | Johns Hopkins Carey Business School
2022 – 2025 **Postdoctoral associate** | MIT Initiative on the Digital Economy
2024 – present **Advisor** | Moku

Education

University of Pennsylvania 2017 — 2022
Ph.D. Neuroscience
Advisor: Professor Dani S. Bassett

University of Virginia 2012 — 2016
B.S. Computer Science, B.A. Cognitive Science

Publications

Harang Ju, Ehsan Valavi, Madhav Kumar, Sinan Aral. Are Crypto Ecosystems (De)centralizing? A Framework for Longitudinal Analysis. *Accepted at **Communications of the ACM***.

Shubhankar Patankar, Dale Zhou, Christopher W Lynn, Jason Z Kim, Mathieu Ouellet, **Harang Ju**, Perry Zurn, David M Lydon-Staley, Dani S Bassett. Curiosity as filling, compressing, and reconfiguring knowledge networks. *Collective Intelligence* (2023). [link](#)

Harang Ju, Dale Zhou, Ann S. Blevins, David M. Lydon-Staley, Judith Kaplan, Julio R. Tuma, Danielle S. Bassett. Historical growth of concept networks in Wikipedia. *Collective Intelligence* (2022). [link](#)

Jaron T Colas, Neil M Dundon, Raphael T Gerraty, Natalie M Saragosa-Harris, Karol P Szymula, Koranis Tanwisuth, J Michael Tyszk, Camilla van Geen, **Harang Ju**, Arthur W Toga, Joshua I Gold, Dani S Bassett, Catherine A Hartley, Daphna Shohamy, Scott T Grafton, John P O'Doherty. Reinforcement learning with associative or discriminative generalization across states and actions: fMRI at 3T and 7T. *Human Brain Mapping* (2022). [link](#)

Harang Ju, Jason Z Kim, Danielle S. Bassett. Network structure of cascading neural systems predicts stimulus propagation and recovery. *Journal of Neural Engineering* (2020). [link](#)

Harang Ju, Danielle S. Bassett. Dynamic representations in networked neural systems. *Nature Neuroscience* (2020). [link](#)

Evelyn Tang, **Harang Ju**, Graham L Baum, David R Roalf, Theodore D Satterthwaite, Fabio Pasqualetti, Danielle S Bassett. Control of brain network dynamics across diverse scales of space and time. *Physical Review E* (2020). [link](#)

Pragya Srivastava, Erfan Nozari, Jason Z. Kim, **Harang Ju**, Dale Zhou, Cassiano Becker, Fabio Pasqualetti, Danielle S. Bassett. Models of communication and control for brain networks: distinctions, convergence, and future outlook (2020). [link](#)

Harang Ju, Costa M. Colbert, William B Levy. Limited synapse overproduction can speed development but sometimes with long-term energy and discrimination penalties. *PLOS Computational Biology* (2017). [link](#)

Harang Ju, Siyong Kim, Paul Read, Daniel Trifiletti, Andrew Harrell, Bruce Libby, Taeho Kim. Development of a novel remote-controlled and self-contained audiovisual- aided interactive system for immobilizing claustrophobic patients. *Journal of Applied Clinical Medical Physics* (2015). [link](#)

Under Review

Harang Ju, Sinan Aral. Collaborating with AI Agents: A Field Experiment on Teamwork, Productivity, and Performance. [link](#)

Harang Ju, Michael Zhao, Sinan Aral. Complementarity Between Paid and Organic Installs in Mobile App Advertising. [link](#)

Matthew DosSantos DiSorbo, **Harang Ju**, Sinan Aral. Teaching AI to Handle Exceptions: Supervised Fine-Tuning with Human-Aligned Judgment. *Under Review at PNAS Nexus*. [link](#)

Harang Ju, Madhav Kumar, Ehsan Valavi, Sinan Aral. Explaining Sustained Blockchain Decentralization with Quasi-Experiments: Resource Flexibility of Consensus Mechanisms. *Revise & resubmit at Information Systems Research*.

Working Paper

Harang Ju, Georgios Petropoulos. Resale Royalties for Digital Goods. [link](#)

Michelle Vaccaro, Michael Caoson, **Harang Ju**, Sinan Aral, Jared R. Curhan. Advancing AI Negotiations: New Theory and Evidence from a Large-Scale Autonomous Negotiations Competition. [link](#)

Work in Progress

Harang Ju, Sinan Aral. Human-AI Personality Pairing Improves Collaborative Performance.

Invited Talks

Mach 2025	Panel speaker for <i>AI as a Coach</i> . Program on Negotiation AI Summit. Harvard Law School
November 2020	<i>The network structure of scientific revolutions</i> . Center for Science of Science and Innovation. Kellogg School of Management, Northwestern University.

Conferences

October 2024	Talk, Conference on Information Systems and Technology, Seattle, WA.
April 2024	Talk, 2024 NSF/CEME Decentralization Conference, Vanderbilt, Nashville, TN.
December 2023	Talk, Workshop on Information Systems and Economics, Hyderabad, India.
November 2023	Poster, Conference on Digital Experimentation @ MIT, Cambridge, MA.
December 2022	Talk, Crypto-Marketing Conference. Columbia Business School, New York.
March 2021	Poster, American Physical Society March Meeting. Virtual.

September 2019	Poster, Cognitive Computational Neuroscience. Berlin, Germany.
May 2019	Poster, Context and Episodic memory Symposium. Philadelphia, PA.
May 2019	Talk & poster, Sackler Colloquia: Brain Produces Mind by Modeling. Irvine, CA.
November 2018	Poster, Society for Neuroscience. San Diego, CA.

Teaching

Fall 2024	Teaching Assistant Digital Marketing 15.570 MIT Sloan
Fall 2024	Guest Lecture Web3 15.562 MIT Sloan <i>Blockchain, Web3, and Gaming</i>
Fall 2022-24	Project Mentor Analytics Lab 15.572 MIT Sloan
Fall 2020	Guest Lecture BE566: Network Neuroscience University of Pennsylvania <i>Case Study: The network structure of scientific revolutions</i>
Fall 2019	Teaching Assistant BBB249: Cognitive Neuroscience University of Pennsylvania
Fall 2019	Guest Lecture BE566: Network Neuroscience University of Pennsylvania <i>Case Study: Network Structure and Dynamics in Cascading Neural Systems</i>
Spring 2016-17	Teaching Assistant BME3636: Neural Network Models University of Virginia

Awards

2023	Google Cloud Research Innovator
2023	Workshop on Information Systems and Economics (WISE): Best Paper Award Nominee
2019	Travel award to attend Sackler Colloquia: Brain Produces Mind by Modeling
2018	Fine Science Tools travel award to attend Society for Neuroscience conference
2016	Rader Award for Undergraduate Research for Thesis Project, UVA
2012	Rodman scholar (top 5% of prospective engineering students), UVA
2012	QuestBridge finalist

Patents

Taeho Kim, **Harang Ju**, Siyong Kim. Intrafractional motion reduction system using audiovisual-aided interactive guidance and related methods thereof. US 2017/0231530 A1, United States Patent and Trademark Office, 17 August 2017.

Skills

Programming: python, pandas, web (NextJS, React, Vue), R, MATLAB, java, bash, iOS, C++, git
 Languages: English (native), Korean (fluent)

Last updated: 2025.06.03