# DAEHWAN AHN Assistant professor

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## **RESEARCH INTERESTS**

- Human-Al Interaction and Collaboration
- Management Information Systems
- Design, Development, and Impact of AI
- Designing Fair and Responsible AI in Human Resource Management
- Future of Work and Virtual Workplaces

# ACADEMIC WORK EXPERIENCE

2022.8 – present	Assistant Professor Department of Financial Planning, Housing and Consumer Economics, University of Georgia
2018.9 – 2022.5	<b>Postdoctoral Research Associate</b> The Wharton School, University of Pennsylvania Advisor: Dr. Kartik Hosanagar
EDUCATION	
2018	<b>Seoul National University</b> , Republic of Korea Ph.D. in Business Administration (Specialization in Management Information Systems)
2014	<b>Seoul National University</b> , Republic of Korea M.S. in Business Administration (Specialization in Management Information Systems)
2011	<b>Seoul National University</b> , Republic of Korea B.S. in Architecture B.A. in Business Administration

# PUBLICATIONS

- [1] Park, H., Jung, S., Byun, Y., Ahn, D.\*, Park, C., Byun, S., and Huang, Y. "Lessons from Real-World Settings: What Makes It Uniquely Difficult to Design Cognitive Training Programs for Children with Autism Spectrum Disorder and Other Developmental Disabilities." In Proceedings of the ACM SIGCHI Conference on Human Factors in Computing Systems (CHI 2025). \*Ahn, D. is a corresponding author.
- [2] Ahn, D., Almaatouq, A., Gulabani, M., and Hosanagar, K. "Impact of Model Interpretability and Outcome Feedback on Trust in AI." In Proceedings of the ACM SIGCHI Conference on Human Factors in Computing Systems (CHI 2024).
- [3] Park, H., **Ahn, D.**\*, and Lee, J. "Lessons from Working in the Metaverse: Challenges, Choices, and Implications from a Case Study." In Proceedings of the ACM SIGCHI

Conference on Human Factors in Computing Systems, (**CHI 2024**, **Best Paper Honorable Mention Award**). \*Ahn, D. is a corresponding author.

- [4] Park, H. and **Ahn, D.** "The Promise and Peril of ChatGPT in Higher Education: Opportunities, Challenges, and Design Implications." In Proceedings of the ACM SIGCHI Conference on Human Factors in Computing Systems (**CHI 2024**).
- [5] Park, H., **Ahn, D.\***, and Lee, J. "Towards a Metaverse Workspace: Opportunities, Challenges, and Design Implications." In Proceedings of the ACM SIGCHI Conference on Human Factors in Computing Systems (**CHI 2023**). \**Ahn, D. is a corresponding author*.
- [6] Park, H., Ahn, D\*., Hosanagar, K., and Lee, J. "Designing Fair AI in Human Resource Management: Understanding Tensions Surrounding Algorithmic Evaluation and Envisioning Stakeholder-Centered Solutions." In Proceedings of the ACM SIGCHI Conference on Human Factors in Computing Systems, (CHI 2022). \*Ahn, D. is a corresponding author.
- [7] Park, H., Ahn, D., Hosanagar, K., and Lee, J. "Human-AI Interaction in Human Resource Management: Understanding Why Employees Resist Algorithmic Evaluations at Workplaces and How to Mitigate Burdens." In Proceedings of the ACM SIGCHI Conference on Human Factors in Computing Systems (CHI 2021).
- [8] Kong, S. H., Ahn, D., Kim, B., Srinivasan, K., Ram, S., Kim, J. H., Cho, N. H., and Shin, C. S. "A Novel Fracture Prediction Model Using Machine Learning in a Community-Based Cohort." JBMR Plus, e10337 (2020).
- [9] Ahn, D., Park, H., and Yoo, B. "Which Group Do You Want to Travel with? A Study of Rating Differences among Groups on Online Travel Reviews." *Electronic Commerce Research and Applications*, (2017).
- [10] **Ahn, D.**, Jeon, S., and Yoo, B. "What's Your Real Age?: An Empirical Analysis of Identity Fraud in Online Games." *Information Systems and e-Business Management*, (2017).

#### PAPERS UNDER REVIEW

- [1] Ahn, D., Lee, D. K., and Hosanagar, K. "Modeling Lengthy Behavioral Log Data for Customer Churn Management: A Representation Learning Approach."
- [2] Ahn, D., Lee, A. H., Chung, S., and Lee, D. K. "Expert Evaluation, Explanation, and Extension in Al-Powered Information Provision: Evidence from a Randomized Field Experiment on a Lending Platform."
- [3] Hosanagar, K., and Ahn, D. "Designing Human and Generative AI Collaboration."

#### WORKING PAPERS

- [1] Kim, S., **Ahn, D.**, Yum, K., Park, J., Yang, J. S., Choi, B. G., and Yoo, B. "Controllability in Algorithmic Decision-Making: Field Evidence from a Robo-Advisor."
- [2] Ahn, D., Lee, D. K., and Hosanagar, K. "Interpretable Deep Learning Approach to Churn Management." Available at <u>https://ssrn.com/abstract=3981160</u>.

#### **RESEARCH IN PROGRESS**

[1] Ahn, D. "Impact of Video Context Filtering on Brand Safety and Marketing Effectiveness."

- [2] Park, H., **Ahn**, **D.**\*, and Kim, J. E. "Designing a Filtering Policy Framework to Balance Viewer Safety and Brand Trust in Automated Video Assessment." \**Ahn*, *D. is a corresponding author*.
- [3] Park, H., **Ahn, D.\***, and Kim, J. E. "Rethinking Digital Oversight: A Critical Design Study of Virtual Workspace Monitoring." \**Ahn, D. is a corresponding author*.
- [4] Park, H., **Ahn, D.\***, and Kim, J. E. "Designing AI Agents for Virtual Workspaces." *Ahn, D. is a corresponding author.* \**Ahn, D. is a corresponding author.*
- [5] Park, H., Jung, S. B., Byun, Y. H., and **Ahn, D.\*** "Upskilling Instructors and Enhancing Teaching Aids for Children with Developmental Disabilities Using Generative AI in Remote Learning Settings." \**Ahn, D. is a corresponding author*.
- [6] Warmath, D. and **Ahn, D.** "Bridging the AI Divide: Understanding and Overcoming Barriers to AI Adoption in Low-Income Healthcare Users."
- [7] Warmath, D. and **Ahn, D.** "Al in Accounting: Adoption, Workforce Transformation, and Well-Being."
- [8] Cusumano, C., Warmath, D., Zvonkovic, A., and **Ahn, D.** "The Great Recalibration: Quiet Quitting as a Strategy for Coping with Burnout at Work.
- [9] Carnes, R., Warmath, D., Few-Demo, A. L., and **Ahn, D.** "The Role of Adaptive Capacity in Maintaining Well-Being Through Personal Shocks."

### BOOK CHAPTERS

[1] "Ophthalmology meets AI." In B&VIIT AI REPORT. (2020). Co-author. ISBN 9791196885618.

# SELECTED RESEARCH PROJECTS

- [1] [2023–Current] "Upskilling Instructors and Enhancing Teaching Aids for Children with Developmental Disabilities Using Generative AI": Co-PI with Dr. Hyanghee Park, Industry research collaboration with Dubu Inc.
- [2] [2022–Current] "Designing Sustainable Metaverse Workspaces for the Future of Work": Co-PI with Dr. Hyanghee Park, Industry research collaboration with Soma and Zigbang.
- [3] [2023–Current] "Fostering Sustainable Engagement in Robo-Advisory Investment Services": Industry research collaboration with Fount, Republic of Korea.
- [4] [2023–2024] "Designing Optimal Human Expert Intervention in Explainable AI Systems for P2P Lending Investors": Industry research collaboration with Funda, Republic of Korea.
- [5] [2020] "Addressing Risk in Predictive Medical Systems Using Interpretability, Uncertainty, and Correlation-Guided MDN": Principal Investigator, Industry research collaboration with B&VITT Eye Center, Republic of Korea.
- [6] [2019] "Developing an Interpretable Novel Fracture Prediction Model Using Machine Learning in a Community-Based Cohort": Research collaboration with Seoul National University Hospital, Republic of Korea.

# SELECTED GRANTS AND FUNDING

[1] [2025] Sweaney Innovation Fund, College of Family and Consumer Sciences, University of Georgia, *\$5,500* 

- [2] [2018–2023] Research Grants from Industry Collaborations with 40FY Inc., Dubu, Momocon, and V&VITT Eye Center: Principal Investigator, totaling *\$77,000*.
- [3] [2021] "Designing an AI-Expert Collaboration System for Digital Clinical Trials via Causal Machine Learning": Principal AI Designer, TIPS Program, Korea Business Angels Association & KISED, \$500,000.
- [4] [2020] Research Grant: Wharton AI for Business, *\$24,000*; Marketing Science Institute (MSI), *\$5,000*.
- [5] [2018] "Deep Cognitive Therapy for Children with Developmental Disabilities": Principal AI Designer, TIPS Program, Korea Business Angels Association & KISED, *\$500,000*.
- [6] [2016] "Impact of Random Draw In-app Purchasing System in Online Games": Principal Investigator, Korea Internet & Digital Entertainment Association, *\$16,000*.
- [7] [2015] "Research on Promoting Investments to Early Startups Through Matching with Angel Investors": Investigator, Small and Medium Business Administration, *\$50,000*.
- [8] [2014] "Impact Measurement of Social Change Projects": System Designer, \$15,000.
- [9] [2014] "Developing Business Cases": Principal Investigator, Asan Nanum Foundation, \$10,000.
- [10] [2013] "Driving Harmonic Quality Index": Principal Investigator, Hyundai Motors, \$20,000.
- [11] [2013] "Developing BI Dashboard for Risk Management Systems": Investigator, Samsung Insurance, *\$100,000*.
- [12] [2012] "Estimating the Cost of Data Breach": Investigator, KISA, \$30,000.
- [13] [2012] "Used Car Price Estimation Model": Investigator, KT Rent-A-Car, \$20,000.
- [14] [2009, 2013–2014] National Startup Funding: Founder, Small and Medium Business Administration/Korea Institute of Start-up and Entrepreneurship Development, *\$100,000*.
- [15] [2006] Superior Academic Performance Grant, Mirae Asset Foundation, \$5,000.

#### TEACHING EXPERIENCE

- [1] [2022–Current] Instructor, University of Georgia
  - Consumer Policy: AI Ethics and Policy (FHCE 5100/ 7100)
  - Consumer Analytics: Evidence-Based Strategy (FHCE 4000/6000)
  - Data for Consumer Analytics (FHCE 4900/6900)
  - Introduction to Social Entrepreneurship (FHCE 4010/6010)
- [2] [2020-2022] Teaching Assistant, University of Pennsylvania
  - AI for Business (one undergraduate; four MBA and two EMBA; one Wharton Alumni)
- [3] [2018] Coordinator & Instructor, SNU-MIS Summer Workshop for ML/DL
  - Python / Numpy / Pandas / Matplotlib
  - · Regression / Classification / Clustering / Dimension Reduction in ML/DL
  - Text Analysis (BOW / TF-IDF / LDA / Embedding / Sentiment Analysis)
  - Generative DL (VAEs, U-Net, and GANs)
- [4] [2017] Lecturer, Seoul National University
  - Management Information Systems (Undergraduate Course)
- [5] [2015–2016] Teaching Assistant, Seoul National University
  - Statistics and Decision Models (one global MBA; two EMBA)
  - Management Information Systems (EMBA course)

### OTHER INFORMATION

- [1] Selected Reviewing/Refereeing Journals and Conference Proceedings
  - · Management Science
  - · Information Systems Research
  - · ACM CHI Conference on Human Factors in Computing Systems
  - · JAMA Network Open
- [2] Technical Skills
  - Machine/Deep Learning (Python, Tensorflow, PyTorch)
  - · Data Analysis (R, MATLAB, STATA, SPSS, SAS)
  - Business Intelligence (Tableau, MS Power BI)
  - Backend Tools (RDBMS, SQL, Columnar/NoSQL Database, ETL)
  - Big Data and Cloud Platforms (AWS, GCP, Azure, Google Colab)
- [3] Work Experience
  - · [2020–2022] AI/Business Analytics Researcher at Wharton AI for Business
  - [2018–Current] AI Advisor/ Designer: (1) 40FY Inc., app-based mental health therapies, Seoul, Korea; (2) Dubu, app-based educational cognitive therapies for children with developmental disabilities, Seoul, Korea; (3) V&VITT Eye Center, one of the biggest refractive surgery hospitals in Korea, Seoul, Korea; (4) Funda, P2P lending platform in Korea.
  - [2018-2020] AI Advisor: (1) Momocon, a new media content creation company, Seoul, Korea; (2) Cookapps, a global mobile gaming company, Seoul, Korea
  - [2011–2018] Co-Founder & Product Manager: BzPlug, business intelligence and analytic database (B2B), Seoul, Korea
  - · [2007–2011] Founder: Wenistory, a social-filtering platform, Seoul, Korea
  - [2003–2005] Military Service: Eighth United States Army (EUSA), KATUSA (Korean Augmentation To the United States Army)

# REFERENCES

- [1] Kartik Hosanagar (Postdoc Advisor)
  John C. Hower Professor of Technology and Digital Business and a Professor of Marketing Operations, Information and Decisions, Wharton School, University of Pennsylvania Phone: +1.215.573.0831
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- [2] Dokyun "DK" Lee (Co-author)
  Kelli Questrom Associate Professor in Management
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- [3] Byungjoon Yoo (Ph.D. advisor)

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