

Soonho Kim

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Summary

Soonho Kim is an expert in data, AI, and information systems with over 20 years of experience driving digital transformation in agriculture and food systems. At the International Food Policy Research Institute (IFPRI), she serves as Senior Data Manager, leading the design and implementation of data infrastructure and digital platforms to support global research and policy efforts. Prior to IFPRI, she contributed to the Food and Agriculture Organization (FAO) of the United Nations, where she worked on semantic technologies and information interoperability across agricultural knowledge systems.

Dr. Kim holds a Ph.D. in Agricultural and Biological Engineering with a minor in Computer Science from the University of Florida. Her technical expertise spans cloud computing, knowledge graphs, machine learning, and full-stack application development. She is also an AWS Certified Solutions Architect and an active contributor to research on data platforms, AI applications, and digital tools for development.

Through her work with IFPRI, FAO, ILRI, and academic institutions, Dr. Kim has supported efforts to enhance data-driven decision-making, promote innovation in agricultural systems, and strengthen food security worldwide.

Experience



Senior Data Manager

International Food Policy Research Institute (IFPRI)

Apr 2019 - Present



Data manager

International Food Policy Research Institute (IFPRI)

Jun 2014 - Mar 2019 (4 years 10 months)



Web portal specialist

International Food Policy Research Institute (IFPRI)

Sep 2011 - Jun 2014 (2 years 10 months)



Information Management Specialist

FAO

Sep 2006 - Aug 2011 (5 years)



Post Doc. Researcher

University of Florida

Jan 2006 - Sep 2006 (9 months)

Developing a crop-biosecurity ontology for online catalog for crop biosecurity



Research Associate

University of Florida

Jan 2001 - Dec 2005 (5 years)

Developing software (Decision Information System for Citrus) for managing Florida citrus production management,

coordinated by The University of Florida's Institute of Food and Agricultural Sciences between the Agricultural and Biological Engineering Department, the Citrus Research & Education Center in Lake Alfred, FL, the Southwest Florida Research & Education Center in Immokalee, FL, the Indian River Research & Education Center in Ft. Pierce, FL. for experts, growers, production managers, crop consultants and Extension Agents.



IT consultant

International Livestock Research Institute (ILRI)

May 2002 - Aug 2002 (4 months)

Developing AGVIEW 2002 (Free GIS software) for providing software of GIS to southeast Africa countries

Education



University of Florida

Ph.D., Agricultural Engineering

2000 - 2005



University of Florida

PhD (minor), Computer information Science and Engineering

2001 - 2005



Seoul National University

Master's degree, Microbiology and Immunology



Korea University

Bachelor's degree, Agricultural Biology

Licenses & Certifications



AWS Certified Solutions Architect – Associate - Amazon Web Services (AWS)

Issued Feb 2019 - Expires Feb 2022



Neo4J modeling certificate - Neo4j



React.js Essential Training - LinkedIn



Social and Behavioral Research - Basic/Refresher - CITI Program

Issued Jan 2023 - Expires Jan 2026 40028945



Neo4j Training: Introduction to Neo4j & Graph Data Modeling - Carahsoft

87860937948057



Google Cloud Essential - Google

Skills

Cloud Platform (AWS and GCP) • Full stack developer • Python, Java, PHP, Visual Basic, R, JavaScript (Programming Language) • Knowledge Graphs (RDF & OWL) • Artificial Intelligence (AI) • Cloud architecture • Graph Databases • Neo4j • Machine learning • Agriculture • Data management • Application development

Publications

Kim, Soonho, Xingyi Song, Boyeong Park, Daeun Ko, and Yanyan Liu. *Real-time media analysis using large language model (LLM) for the top 5 prioritized pests and diseases*. Intl Food Policy Res Inst, 2025.

Vos, Rob, Soonho Kim, V. Rangan, and Betina Dimaranan. "Knowledge Platform for Inclusive and Sustainable Food Markets and Value Chains: IPSR Innovation Profile." (2024).

Kim, Soonho, Xingyi Song, Boyeong Park, Daeun Ko, and Yanyan Liu. "Media analysis for crop protection: Utilizing AI to monitor top five priority diseases in agriculture." (2023).

Liang, Tianyu, Yida Mu, Soonho Kim, Darline Larissa Kengne Kuate, Julie Lang, Rob Vos, and Xingyi Song. "Classification-Aware Neural Topic Model Combined With Interpretable Analysis--For Conflict Classification." *arXiv preprint arXiv:2308.15232* (2023).

Arnaud, Elizabeth, Obileye Olatunbosun, Enrico Bonaiuti, Sara Jani, Soonho Kim, Marie Angelique Laporte, Jacqueline Muliro et al. "Increasing Interoperability Between Food and Agricultural Systems: CGIAR & FAO Collaboration: Task Group and Curation Team Report." (2021).

Arnaud, E., Laporte, M. A., Kim, S., Aubert, C., Leonelli, S., Miro, B., ... & King, B. (2020). The ontologies community of practice: A CGIAR initiative for big data in agrifood systems. *Patterns*, 1(7), 100105.

van Wijk, M. T., Alvarez, C., Anupama, G., Arnaud, E., Azzarri, C., Burra, D., ... & Kruseman, G. (2019). Towards a core approach for cross-sectional farm household survey data collection: a tiered setup for quantifying key farm and livelihood indicators. Devare, Medha; Zandstra, Megan; Clobridge, Abby; Fotsy, Michelle; Abreu, David; Arnaud, Elizabeth; Baraka, Paul; Bonaiuti, Enrico; Chukka, Srinivasarao; Dieng, Ibnou; Dreher, Kate; Erlita, Sufiet; Juarez, Henry; Kim, Soonho; Koo, Jawoo; Muchlish, Usman; Müller, Martin; Mwanzia, Leroy; Poole, Jane; Siddiqui, Salman with other data, knowledge, and information managers across CGIAR. 2017. Open Access and Open Data at CGIAR: Challenges and solutions. *Knowledge Management for Development Journal* 13(2): 7-21.

Kim, Soonho, Kathryn Pace Kincheloe, Yuan Gao, and Valdete Berisha. "Managing a web portal adapting to new technologies." *Agricultural Information Worldwide* 6 (2014): 107-113.

L.A. Hunt , Kenneth J. Boote, James W. Jones, Jawoo Koo, Soonho Kim, Jeffrey W. White, Paul W. Wilkens, Gerrit Hoogenboom, Cheryl H. Porter (2013) Integrated description of agricultural field experiments and production: The ICASA Version 2.0 data standards, *Computers and Electronics in Agriculture* 96:1-12

Soonho Kim, Marta Iglesias-Sucasas, Virginie Violliera (2013) The FAO geopolitical ontology: A reference for country-based information, *Journal of Agricultural & Food Information* 14 (1):1-16

Soonho Kim, Virginie Viollier, Marta Iglesias (2011) Linked Open Data for Food and Agriculture Profiles. 2011 The semantic Technology Conference.

Marta Iglesias, Soonho Kim, Virginie Viollier (2010) FAO's geopolitical ontology and service. 2010 The Semantic Technology Conference.

Soonho, Kim, Marta Igesias, Caterina Caracciolo et al. (2009) Integrating country-based heterogeneous data at the United Nations: FAO's geopolitical ontology and services. *Semantic Web.com*.

Soonho Kim, Singh Jeetendra, Ze; Li et al. (2008) A multilingual semantic search assistant to facilitate information retrieval, pp 511-519. World conference on agricultural information and IT, IAALD AFITA WCCA

2008

Muñoz-García Óscar, Asunción Gómez-Pérez, Marta Iglesias-Sucasas et al. (2007) A Workflow for the Networked Ontologies Lifecycle: A Case Study in FAO of the UN, 200-209. The current topics in artificial intelligence, Lecture Notes in Computer Science 4778:200-209.

Soonho Kim, Howard W. Beck (2006) A Practical Comparison Between Thesaurus and Ontology Techniques As a Basis for Search Improvement, 23-42. Journal of Agricultural & Food Information 7 (4):23-42

Badal, Rohit, Soonho Kim, John Owens, and Howard Beck. "An integrated database approach for managing educational resources in agricultural and biological engineering." *International Journal of Engineering Education* 22, no. 6 (2006): 1210.

Kim, Soonho, and Howard W. Beck. "Ontology-assisted Information Extraction in Agricultural Publications." In *2003 ASAE Annual Meeting*, p. 1. American Society of Agricultural and Biological Engineers, 2003.