Donghyun Lee, Ph. D.

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CONTACT INFORMATION

Division of Social Science & AI
Hankuk University of Foreign Studies,
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RESEARCH INTERESTS

Trustworthy AI, AI in Social Science, Technology Management

EDUCATION

Korea Advanced Institute of Science and Technology (KAIST), College of Business, Graduate School of Technology and Innovation Management, Daejeon, Republic of Korea
Ph.D. in Engineering (Advisor: Prof. Minki Kim)**,** Aug. 2016
Dissertation: "Essays on big data analytics in industrial research: Green energy policy and patent litigation."

Korea Advanced Institute of Science and Technology (KAIST), College of Business, Graduate School of Technology and Innovation Management, Daejeon, Republic of Korea
Master of Engineering (Advisor: Prof. Jay Ohm), Aug. 2011

Korea Advanced Institute of Science and Technology (KAIST), Information and Communication Engineering, Daejeon, Republic of Korea
Bachelor of Engineering; IT Business minor, Aug. 2009

WORK EXPERIENCE

Hankuk University of Foreign Studies, Seoul, Republic of Korea
- **Associate Professor**, Division of Social Science & AI, Sep. 2025 - Present

Tech University of Korea, Siheung-si, Republic of Korea
- **Associate/Assistant Professor**, Department of Business Administration, Mar. 2017 - Aug. 2025
- **Director**, SW Education Center**,** Sep. 2022 – July. 2024
- **Chief Professor**, Venture Entrepreneurship Integration Major, Nov. 2019 - Sep. 2022
- **Chief Professor**, Smart Factory Integration Major, Sep. 2018 - Aug. 2019

AI of Korea. Inc., Incheon, Republic of Korea
- **CEO and Founder,** Dec. 2022 - Aug. 2025

Journal of Innovation & Knowledge, Amsterdam, Netherlands
- **Editorial Board Members,** Apr. 2025 - Present

Committee from Ministry of Environment, Environmental Economics Division, South Korea
- **Committee Member**, Jul. 2022 - Jul. 2024

Korea Environmental Institute, Sejong, Republic of Korea
- **Research Fellow**, Big Data Research Team, Jul. 2016 - Feb. 2017

PUBLICATIONS

ARTICLES

D. Lee*, H. Jeon (2025) Reinforced explainable AI for algal bloom forecasting under climate change: A multi-run class activation mapping (CAM) approach, *Journal of Cleaner Production*, 146805 (SCIE, IF = 10.0 / JCR Top 6.0%)

D. Lee*, B. Lee (2024) Building Reliable AI for Quantifying Uncertainty in Particulate Matter Predictions with Deep Learning, *Journal of Cleaner Production*, 143457 (SCIE, IF = 10.0 / JCR Top 6.0%)

D. Lee*, M. Kim, B. Lee, S. Chae, S. Kwon, S. Kang (2022) Integrated explainable deep learning prediction of harmful algal blooms, *Technological Forecasting and Social Change*, 185, 122046 (SSCI, IF = 13.3 / JCR Top 0.9%).

S. Chae, J. Shin, S. Kwon, S. Lee, S. Kang, **D. Lee***(2021) PM10 and PM2.5 real-time prediction models using an interpolated convolutional neural network, *Scientific Reports*, 11(1), 11952 (SCIE, IF = 3.9 / JCR Top 18%).

S. Chae, S. Jang, S. Lee, **D. Lee***(2020) Complex System Analysis of Korean peninsula earthquake Data, *Scientific Reports*, 10(1), 2686 (SCIE, IF = 3.9 / JCR Top 18%).

S. Huh, H. Lee, J. Shin, **D. Lee**, J. Jang (2018) Inter-fuel substitution path analysis of the Korea cement industry, *Renewable and Sustainable Energy Reviews*, 82, 4091-4099 (SCI, IF = 16.3 / JCR Top 2.4%).

J. Shin, S. Kang, **D. Lee***, B. Hong (2018) Analysing the failure factors of eco-friendly home appliances based on a user-centered approach, *Business Strategy and the Environment*, 27(8), 1399-1408 (SSCI, IF = 13.3 / JCR Top 1.1%).

D. Lee, M. Kim, J. Lee (2016) Adoption of green electricity policies: Investigating the role of environmental attitudes via big data-driven search-queries, *Energy Policy*, 90, 187-201 (SSCI, IF = 9.2 / JCR Top 1.5%).

D. Lee, H. Lee, M. Choi (2016) Examining the relationship between past orientation and US suicide rates: An analysis using big data-driven Google search queries, *Journal of medical Internet research*, 18(2), e35 (SCIE, IF = 6.0 / JCR Top 6.1%).

BOOK CHAPTERS

S. Kang, **D. Lee*** (2022). "Use of artificial intelligence for predicting infectious disease." In P. Keikhosrokiani, "Big Data Analytics for Healthcare: Datasets, Techniques, Life Cycles, Management, and Applications", Elsevier. ISBN: 9780323985161 (SCOPUS).

RESEARCH REPORTS

D. Lee, J. Shin, M. Kim, " Predicting the Spread of Avian Influenza in Wild Birds" Research Report, 2024, NIWDCP.

S. Kang, **D. Lee**, G. Ko, D. Jin, H. Hong, D. Kim, S. Kang, "Big Data Analysis: Application to Environmental Research and Service VII," Policy Research Report, 2023, Korea Environmental Institute.

S. Kang, **D. Lee**, J. Pyo, G. Ko, Y. Cho, G. Han, D. Jin, S. Kang, "Big Data Analysis: Application to Environmental Research and Service VI," Policy Research Report, 2022,

pp. 1-108, Korea Environmental Institute.

H. Hong, **D. Lee**, G. Ko, D. Jin, S. Kang, S. Kang, D. Kim, "Big Data Analysis: Application to Environmental Research and Service V," Policy Research Report, 2021, pp. 1-195, Korea Environmental Institute.

S. Kang, **D. Lee**, G. Ko, D. Jin, H. Hong, G. Han, S. Kang, D. Kim, "Big Data Analysis: Application to Environmental Research and Service III," Policy Research Report, 2019, pp. 1-288, Korea Environmental Institute.

S. Kang, **D. Lee**, K. Jang, D. Jin, H. Hong, G. Han, J. Kim, S. Kang, D. Kim, "Big Data Analysis: Application to Environmental Research and Service II," Policy Research Report, 2018, pp. 1-271, Korea Environmental Institute.

S. Kang, **D. Lee**, K. Jang, D. Jin, H. Hong, G. Han, J. Kim, S. Kang, D. Kim, E. Jung, "Big Data Analysis: Application to Environmental Research and Service," Policy Research Report, 2017, pp. 1-465, Korea Environmental Institute.

D. Kim, S. Song, S. Park, J. Kim, **D. Lee**, S. Jo, "A Study on Expansion of Pro-Environmental Consumption Using Social Economy," Policy Research Report, 2017, pp. 1-246, Korea Environmental Institute.

S. Kwak, J. Shin, **D. Lee**, S. Kang, "A Study on Promoting Environmental Consumption by Developing the Environmental Attitude-Behavior Model," Policy Research Report, 2016, pp. 1-226, Korea Environmental Institute.

PATENTS

"Method for Predicting Air Quality Using Artificial Intelligence." Patent Application No. 10-2022-0015727, Feb. 2022.

"Improved Device and Method for Predicting Fine Dust Concentration." Patent Application No. 10-2022-0082928, Jul. 2022.

"Method and Device for Predicting Infectious Diseases Using Artificial Intelligence." Patent Application No. 10-2022-0132078, Oct. 2022.

"Method and Device for Predicting Algal Bloom Occurrences Using an Artificial Intelligence Model." Patent Application No. 10-2022-0172370, Dec. 2022.

"Method and Device for Modeling Generation for Time Series Prediction." Patent Application No. 10-2023-0010001, Jan. 2023.

CONFERENCES (DOMESTIC)

“Explainable AI-Based Avian Influenza Outbreak Prediction Considering Uncertainty,” Feb. 2025, Environmental Economics Session, Joint Conference on Economics
(Korean) “불확실성을 고려한 설명 가능한 인공지능 기반 조류 인플루엔자 발생 예측 연구”, 2025.02.06, 경제학 공동 학술대회 환경경제학회 세션

“Analysis of Industrial Workforce Market Trends and Demand Using Big Data and Large Language AI Models”, Aug. 2024, Summer Conference of the Korea Technology Innovation Society

(Korean) “채용 빅데이터와 대형 언어 인공지능 모델을 활용한 산업 인력 시장 동향 및 수요 분석”, 2024.08.30, 한국기술혁신학회 하계학술대회

“Spatiotemporal Modeling and Factor Analysis for Predicting Avian Influenza Spread”, Aug. 2024, Annual Conference of the Korea Environmental Economics Association
(Korean) “조류인플루엔자 확산 예측을 위한 시공간 모델링 및 영향 요인 분석”, 2024.08.20, 한국환경경제학회 하계학술대회

“Automation of Algal Bloom Prediction Through a Deep Learning-Based MLOps Pipeline: AI Model Serving for Policy Utilization”, Jul. 2024, Summer Conference of the Korea Technology Innovation Society
(Korean) “딥러닝 기반 MLOps 파이프라인을 통한 녹조 예측 자동화: 정책적 활용을 위한 인공지능 모델 서빙 접근”, 2024.07.05, 기술경영경제학회 하계학술대회

“(Session for Emerging Researchers) Development and Application of AI for Environmental and Infectious Disease Predictions”, Dec. 2023, Korea Software Congress
(Korean) “(신진연구자 세션) 환경 및 감염병 예측을 위한 인공지능의 개발과 실제”, 2023.12.21. 한국정보과학회 하계학술대회

“Explainable Deep Learning Integration for Algal Bloom Prediction and MLOps Implementation” May 2023, Spring Conference of the Korean Society of Analytical Science
(Korean) “설명 가능한 녹조 통합 딥러닝 예측과 MLOps”, 2023.05.25, 한국분석과학회 정기학술대회

“Fine Dust Prediction Using Convolutional Neural Network Deep Learning”, Aug. 2018, Summer Conference of the Korea Environmental Economics Association
(Korean) “컨벌루션 신경망 딥러닝을 활용한 미세먼지 예측”, 2018.08.27, 한국환경경제학회 하계학술대회

“Stock Price Prediction and Profitability Evaluation Using Deep Learning Analysis of Financial Big Data”, Jul. 2018, Summer Conference of the Korea Technology Innovation Society
(Korean) “재무 빅데이터의 딥러닝 분석을 통한 주가예측 및 수익률 평가”, 2018.07.06, 기술경영경제학회 하계학술대회

“Risk Prediction for Fine Dust Using Deep Learning Technology”, Jun. 2017, Summer Conference of the Korea Technology Innovation Society
(Korean) “딥러닝 기술을 활용한 미세먼지 리스크 예측”, 2017.06.23, 기술경영경제학회 하계학술대회

“Complex System Analysis of Earthquake Big Data: Focusing on Regional Concentration Phenomena”, Jun. 2017, Summer Conference of the Korea Regional Information Society
(Korean) “지진 빅데이터를 활용한 복잡계 현상 분석:지진의 지역 집중화 현상을 중심으로”. 2017.06.15, 한국지역정보학회 하계학술대회

“Application of Deep Learning Technology in Environmental Research: Predicting Eco-Friendly Consumption Indices”, Jun. 2016, Summer Conference of the Korea Technology Innovation Society

(Korean) “딥러닝 기술의 환경 연구에의 적용: 친환경 소비 지표 예측을 중심으로”, 2016.06, 기술경영경제학회 하계학술대회

“A Farewell to Arms? Patent War in the Smartphone Industry”, Feb. 2015, Joint Economics Conference
(Korean) “A Farewell to Arms? Patent War in the Smartphone Industry”, 2015.02.25, 경제학 공동학술대회 정보통신정책학회 세션

PROJECTS

CURRENT PROJECTS

Co-Investigator, "Wild Bird Avian Influenza Spread Prediction Research(III)", National Wildlife Disease Management Institute, Aug 2025 - May 2026.

PAST PROJECTS

Principal Investigator, "Wild Bird Avian Influenza Spread Prediction Research(II)", National Wildlife Disease Management Institute, Jul. 2024 - May 2025.

Principal Investigator, "Simulation of Infectious Disease Prediction Using Transfer Learning Deep Learning”, Korea Research Foundation, Mar. 2020 - Feb. 2025.

Principal Investigator, "Development of Advanced Algal Bloom Prediction Model Using Explainable AI", Tech University of Korea, 1st Place in Tech University of Korea Research Competition, Oct. 2023 - Oct. 2024.

Principal Investigator, " Utilizing Big Data and Large Language Models for Analyzing Trends and Demand in the Industrial Workforce Market", Office of Strategic R&D Planning, Jul. 2024 - Sep 2024.

Principal Investigator, "Wild Bird Avian Influenza Spread Prediction Research", National Wildlife Disease Management Institute, Jul. 2023 - May 2024.

Co-Investigator, "Development of Performance Indicators and Management System for LAMP Project", Korea Research Foundation, Nov. 2023 - Mar. 2024.

Principal Investigator, "Development of Machine Learning-Based Performance Prediction Model for Seawater Desalination Plants", Kookmin University, Oct. 2023 - Dec. 2023.

Principal Investigator, "Development of Machine Learning-Based Prediction Model for Water Quality and Energy Consumption in Sewage Treatment Plants", Kookmin University, Sep. 2023 - Nov. 2023.

Principal Investigator, "Test Data Analysis for Remaining Life Measurement of Electric Vehicle Lithium-Ion Batteries", Korea Test Laboratory, Jun. 2023 - Oct. 2023.

Principal Investigator, "Construction of Automated Data Pipeline for Algal Bloom Prediction Using Deep Learning for MLOps", Korea Environment Institute, Mar. 2023 - Oct. 2023.

Principal Investigator, "Establishment of a Rapid Response System for Avian Influenza in Accordance with its Endemic Trends", National Wildlife Disease Management Institute,

Aug. 2022 - Nov. 2022.

Principal Investigator, "Research on Application of Functional Safety Standards in the HVAC Industry Using AI Technology", Korea Test Laboratory, Jun. 2022 - Oct. 2022.

Principal Investigator, "Development of a New Fine Dust Prediction Module Based on Explainable Artificial Intelligence", Korea Environment Institute, Apr. 2022 - Oct. 2022.

Principal Investigator, "Deep Learning-Based Prediction of Fine Dust Concentration and Uncertainty", Korea Environment Institute, Mar. 2021 - Nov. 2021.

Principal Investigator, "Application of Deep Learning Technology in Environmental and Industrial Research", Korea Research Foundation, Mar. 2017 - Feb. 2020.

Principal Investigator, "Deep Learning-Based Integrated Prediction of Environmental Pollution", Korea Environment Institute, Feb. 2019 - Nov. 2019.

Principal Investigator, "Deep Learning-Based Traffic Prediction for Logistics Optimization", Jeongseok Logistics Academic Foundation, Jan. 2019 - Dec. 2019.

Principal Investigator, "Quantitative Analysis of Factors Influencing Dropout Rates Based on Big Data", Tech University of Korea, Jul. 2018 - Nov. 2018.

Principal Investigator, "Application of Deep Learning Technologies in Environmental and Industrial Research - Initial Innovation Laboratory", Korea Research Foundation, Mar. 2018 - Feb. 2019.

Principal Investigator, "Fine Dust Prediction Using Convolutional Neural Networks", Korea Environment Institute, Mar. 2018 - Nov. 2018.

Principal Investigator, "Natural Language Analysis and Advisory of Water Source Related Complaint Data", Korea Environment Institute, Jul. 2017 - Jul. 2017.

Principal Investigator, "Predicting Epidemic Spread Using Deep Learning Analysis of Query Big Data", Korea Research Foundation, Jul. 2017 - Jun. 2019.

Principal Investigator, "Analysis of Eco-Friendly Consumption Using Social Networking Services (SNS)", Korea Environment Institute, Apr. 2017 - Sep. 2017.

Principal Investigator, "Application of Deep Learning Technology in Social Science Research", Tech University of Korea, Apr. 2017 - Mar. 2019.

Principal Investigator, "Environmental Risk Prediction Using Deep Learning", Korea Environment Institute, Mar. 2017 - Nov. 2017.

Co-Investigator, "Smart Factory Operation Design and Professional Personnel Training Project", Korea Industrial Technology Promotion Agency, Mar. 2018 - Feb. 2022.

Co-Investigator, "Support for Multidisciplinary Education Courses Led by Design", Korea Design Promotion Institute, Jun. 2020 - Dec. 2020.

Co-Investigator, "LINC+ Leading University for Innovation in the 4th Industrial

Revolution", Korea Research Foundation, Mar. 2018 - Aug. 2019.

TEACHING EXPERIENCE

Hankuk University of Foreign Studies, Seoul, Korea

Fundamentals of Social Data Programming (M04103201)

- This course covers the fundamental concepts of programming using Python. Students will learn to use Python data types, operators, conditionals, loops, functions, and classes, and understand Pythonic code, modules, packages, and exception handling.
- Fall 2025: Sections M04103201 (GIE: 4.8/5, University Average: 4.61)

Industrial Data Visualization (M04111101)

- Learn data preprocessing using Python, focusing on Numpy and Pandas libraries. Learn how to appropriately visualize various data using libraries like Matplotlib, Streamlit Cloud and Github for interactive dashboard.
- Fall 2025: Sections M04103201 (GIE: 4.7/5, University Average: 4.61)

Understanding Technology Development Research (M04112101)

- Understand technology management and the high-tech industry Learn methodologies for technology development based on consumer preference and market analysis. Study factors to consider in the commercialization process of new technologies.
- Fall 2025: Sections M04103201 (GIE: 4.23/5, University Average: 4.61)

Tech University of Korea, Siheung-si, Korea

Programming and Data Analysis (AEB21022)

- Basic programming with Python, covering object-oriented concepts such as classes, modules, and packages and introduction to data preprocessing.
- Fall 2023: Sections AEB21022-12, AEB21022-11.
- Fall 2022: Sections AEB21022-02 (GIE: 4.51/5, Department Average: 4.39),
- AEB21022-12 (GIE: 4.71/5, Department Average: 4.39).
- Fall 2021: Sections AEB21022-01 (GIE: 4.48/5, Department Average: 4.36),
- AEB21022-11 (GIE: 4.56/5, Department Average: 4.36).

Big Data Analysis (AEB43017)

- R programming and statistics. Covers fundamental concepts of data, regression analysis, basic programming, data preprocessing, and visualization using R.
- Spring 2024: Sections AEB43017-01 (GIE: 4.77/5, Department Average: 4.49)
- Spring 2023: Sections AEB43017-01 (GIE: 4.49/5, Department Average: 4.43), AEB43017-12 (GIE: 4.53/5, Department Average: 4.36).
- Spring 2022: Sections AEB43017-11 (GIE: 4.37/5, Department Average: 4.36), AEB43017-12 (GIE: 4.14/5, Department Average: 4.36).
- Spring 2021: Sections AEB43017-01 (GIE: 4.58/5, Department Average: 4.31), AEB43017-12 (GIE: 4.38/5, Department Average: 4.31).
- Spring 2020: Sections AEB43017-02 (GIE: 4.19/5, Department Average: 4.08), AEB43017-12 (GIE: 3.71/5, Department Average: 4.08).
- Spring 2019: Sections AEB43017-01 (GIE: 4.19/5, Department Average: 4.32),

AEB43017-06 (GIE: 4.59/5, Department Average: 4.32).
- Spring 2018: Sections AEB43017-02 (GIE: 4.43/5, Department Average: 4.02), AEB43017-05 (GIE: 4.06/5, Department Average: 4.02).

Fundamentals of Programming (AEB13018)
- Basic programming with JAVA, focusing on fundamental programming concepts and techniques.
- Spring 2024: Section AEB13018-02 (GIE: 4.73/5, Department Average: 4.49).
- Spring 2023: Section AEB13018-02 (GIE: 4.99/5, Department Average: 4.43).
- Spring 2022: Section AEB13018-02 (GIE: 4.52/5, Department Average: 4.36).
- Spring 2021: Section AEB13018-02 (GIE: 4.68/5, Department Average: 4.31).
- Spring 2020: Section AEB13018-02 (GIE: 4.29/5, Department Average: 4.08).
- Spring 2019: Section AEB13018-02 (GIE: 4.16/5, Department Average: 4.32).
- Spring 2018: Section AEB13018-01 (GIE: 4.92/5, Department Average: 4.02).
- Spring 2017: Section AEB13018-01 (GIE: 4.49/5, Department Average: 4.01).

Advanced IT Service Techniques (AEB33017)
- Deep learning and machine learning concepts with practical Python applications.
- Fall 2021: Section AEB33017-01 (GIE: 4.73/5, Department Average: 4.36).
- Fall 2020: Section AEB33017-01 (GIE: 4.35/5, Department Average: 4.26).
- Fall 2019: Section AEB33017-01 (GIE: 4.18/5, Department Average: 4.16).
- Fall 2018: Section AEB33017-01 (GIE: 4.39/5, Department Average: 4.24).
- Fall 2017: Section AEB33017-01 (GIE: 4.55/5, Department Average: 4.11).

Understanding Programming (AEB23017)
- Basics of programming and data analysis using R.
- Fall 2019: Section AEB23017-05 (GIE: 3.8/5, Department Average: 4.16).
- Fall 2018: Section AEB23017-05 (GIE: 4.48/5, Department Average: 4.24).
- Fall 2017: Section AEB23017-05 (GIE: 4.65/5, Department Average: 4.11).

Corporate Data Analysis (AEB33013)
- Empirical analysis of corporate data using R and statistical methods.
- Spring 2017: Sections AEB33013-05 (GIE: 4.18/5, Department Average: 4.01), AEB33013-06 (GIE: 4.21/5, Department Average: 4.01).

Management Capstone Design (Undergraduate Research) 2 (AEB34013)
- Graduate research using advanced research methodologies.
- Fall 2022: Section AEB44013–01 (GIE: 4.75/5, Department Average: 4.39).
- Fall 2021: Section AEB44013–01 (GIE: 4.37/5, Department Average: 4.36).
- Fall 2020: Section AEB44013–01 (GIE: 4.62/5, Department Average: 4.26).
- Fall 2019: Section AEB44013–01 (GIE: 4.43/5, Department Average: 4.16).
- Fall 2018: Section AEB44013–01 (GIE: 4.57/5, Department Average: 4.16).
- Fall 2017: Section AEB44013–01 (GIE: 4.55/5, Department Average: 4.02).

Management Capstone Design (Undergraduate Research) 1 (AEB44011)
- Performing graduate research using research methodologies.
- Spring 2024: Section AEB44011-06 (GIE: 4.67/5, Department Average: 4.49).
- Spring 2023: Section AEB44011-01 (GIE: 4.63/5, Department Average: 4.43).
- Spring 2022: Section AEB44011-01 (GIE: 4.8/5, Department Average: 4.36).
- Spring 2021: Section AEB44011-01 (GIE: 4.28/5, Department Average: 4.31).
- Spring 2020: Section AEB44011-01 (GIE: 3.63/5, Department Average: 4.08).
- Spring 2019: Section AEB44011-01 (GIE: 4.22/5, Department Average: 4.32).

- Spring 2018: Section AEB44011-01 (GIE: 4.45/5, Department Average: 4.02).

Management Capstone Design Planning (AEB34002)
- Exploration of graduation research topics and foundational research methodologies.
- Fall 2022: Section AEB34002-01 (GIE: 4.56/5, Department Average: 4.39).
- Fall 2021: Section AEB34002-01 (GIE: 4.59/5, Department Average: 4.36).
- Fall 2020: Section AEB34002-01 (GIE: 4.32/5, Department Average: 4.26).
- Fall 2019: Section AEB34002-01 (GIE: 4.73/5, Department Average: 4.16).
- Fall 2018: Section AEB34002-01 (GIE: 4.53/5, Department Average: 4.24).
- Fall 2017: Section AEB34002-01 (GIE: 4.11/5, Department Average: 4.02).

Graduate Course: Information Strategy and Management Innovation (BIM61019)
- Theories of MIS, focusing on big data, AI, and other emerging technologies.
- Fall 2019: Section BIM61019-01.
- Fall 2017: Section BIM61019-01.

Graduate Course: New Technology Management (BIM60001)
- Core concepts of technology management and innovation theories.
- Fall 2018: Section BIM60001-01.

Official Public Online Course by KOCW (Korea OpenCourseWare), South Korea, available at kocw.net

Python Programming
- Focuses on enhancing fundamental programming skills using Python, including conditional statements and loops.
- Availability: Online since Spring 2020
- Total Lectures: 26
- GIE: 4.4/5.0, Views: 41,000
- Link: http://kocw.net/home/cview.do?cid=3aeee0aa8ad8e840

Python Programming 2
- Basic Python course covering object-oriented programming, and data preprocessing with Numpy and Pandas.
- Availability: Online since Fall 2020
- Total Lectures: 26
- Views: 19,000
- Link: http://kocw.net/home/cview.do?cid=34a2968dc3c32394

Big Data Analysis
- Basic learning in R programming and data analysis, tailored for understanding big data concepts and techniques.
- Availability: Online since Fall 2019
- Total Lectures: 26
- GIE: 4.5/5.0, Views: 28,000
- Link: http://kocw.net/home/cview.do?cid=4dada115bddd6d76

Fundamentals of Programming
- Introduction to programming fundamentals using JAVA, emphasizing core programming concepts and techniques.
- Availability: Online since Spring 2020
- Total Lectures: 26

- GIE: 5.0/5.0, Views: 11,000
- Link: http://kocw.net/home/cview.do?cid=abb3f94415cbff41

K-DIGITAL Training Online Course, Tech University of Korea, Siheung-si, South Korea

Deep Learning
- Provides a deep understanding of the principles of deep learning. Focuses on implementing deep learning models using Numpy and standard python without relying on deep learning packages such as Tensorflow and PyTorch.
- Duration: June 2021 - Present (Cohorts 1 to 6)
- Total Lectures: 20

HONORS/AWARDS

Environmental Data Analysis Contest, Development of Multimodal LLM Interactive AI Specialized in Environmental Research, President's Award of the Korea Environment Institute, 2024"

Outstanding Researcher Award (Excellence in Academic Paper Category) with the President's Commendation at Tech University of Korea, 2019

Presidential Award for the Korea Young Talent Award
(Korean: 대한민국 인재상 대통령상) by the President of South Korea, 2008

CERTIFICATIONS

OCJP (Oracle Certified Java Programmer) by Oracle

Survey analyst, Junior (Statistical analysis certification) by South Korea

ADsP (Advanced Data Analytics Semi-Professional) by Korea Data Agency