

Yunhak Oh

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RESEARCH INTEREST

Applied Machine Learning

Mining meaningful knowledge from data to develop solutions for real changes to create practical value

- Recommender System, Graph Representation Learning

PROFESSIONAL EXPERIENCE

NielsenIQ, Seoul, South Korea

- Manager, Data Science Jul 2018 – Aug 2021
 - Spearheaded the Auto-coding project, developing models for classifying brands and categories from web-crawled descriptions, resulting in a \$54K USD cost reduction over three months
 - Devised an innovative e-commerce market analysis approach by integrating estimations from major retailers and strategically reorganizing retailer groups to reflect market growth, resulting in a contribution of \$71.9K in revenue
 - Assisted the Merger and Acquisition process by spearheading the integration of data and solutions between the two companies, successfully contributing to the realization of a project valued at \$901K USD
 - Led a global initiative as Technical Lead to automate the client inquiry resolution process, significantly enhancing operational efficiency in collaboration with international stakeholders
- Senior Executive, Data Science Jul 2017 – Jun 2018
 - Managed data change initiatives by implementing a data-driven methodology for estimating historical data, resulting in an 83% reduction in production time
 - Led the transition to modern retail point-of-sale systems, modernizing traditional trade practices
- Executive, Data Science Jan 2015 – Jun 2017
 - Spearheaded a trading area analysis by integrating sales data, credit card transactions, and telecom traffic insights
 - Proactively developed software to enhance daily work efficiency, resulting in a 92% reduction in data extraction time and a 50% decrease in report generation time

EDUCATION

KAIST (Korea Advanced Institute of Technology), Daejeon, South Korea

- Ph.D. in Graduate School of Data Science Sep 2023 – Present
 - Research Interest: Recommender System, Graph Representation Learning
 - Adviser: [Prof. Chanyoung Park](#)
- M.S. in Industrial & Systems Engineering Sep 2021 – Aug 2023
 - Research Interest: Recommender System, Graph Representation Learning
 - Adviser: [Prof. Chanyoung Park](#)

SungKyunKwan University, Gyeonggi, South Korea

Mar 2009 – Feb 2015

- B.S.E. in System Management Engineering
 - *Summa Cum Laude* (1 / 133)
 - Included two years of mandatory military service in the Office of the President of the Republic of Korea
- B.A. in Psychology
 - Dual Degree

PUBLICATIONS

(*: Equal contribution)

CONFERENCES

- [C2] MUSE: Music Recommender System with Shuffle Play Recommendation Enhancement
Yunhak Oh*, Sukwon Yun*, Dongmin Hyun, Sein Kim, Chanyoung Park
ACM International Conference on Information and Knowledge Management (**CIKM 2023**)
- [C1] GraFN: Semi-Supervised Node Classification on Graph with Few Labels via Non-Parametric Distribution Assignment
Junseok Lee, **Yunhak Oh**, Yeonjun In, Namkyeong Lee, Dongmin Hyun, Chanyoung Park
ACM SIGIR Conference on Research and Development in Information Retrieval (**SIGIR 2022 Short paper**)

JOURNALS

- [J2] Discovering relationships between skin type and life style using data mining techniques: A case study of Korea
Taeheung Kim, Jihyun Ha, Jong-Seok Lee, **Yunhak Oh**, Yong Ju Cho
Industrial Engineering and Management Systems (2016.03)

- [J1] Using data mining techniques to predict win-loss in Korean professional baseball games
Yunhak Oh, Han Kim, Jaesub Yun, Jong-Seok Lee
 Journal of Korean Institute of Industrial Engineers (2014.02)

IN SUBMISSION

CONFERENCES

- [S1] Toward Generalizability of Graph-based Imputation on Bio-Medical Missing Data
 Sukwon Yun, **Yunhak Oh**, Junseok Lee, Xin Liu, Tsuyoshi Murata, Dongmin Hyun, Sein Kim,
 Tianlong Chen, Chanyoung Park
Under Review

AWARDS & SCHOLARSHIPS

- **Nielsen Simply Excellent Awards**, NielsenIQ
 - Developed and rolled out a Client Inquiry Tool for the global market (Gold Award) 2020
 - Created a best practice of Digitalization and Automation (Gold Award) 2020
 - Developed a Client Inquiry Automation tool (Silver Award) 2019
 - Developed and rolled out auto-coding project (Platinum Award) 2019
 - Contributed data and solution integration in the M&A process (Gold Award) 2018
 - Launched E-commerce Market Read Index version 3.0 of South Korea (Gold Award) 2018
 - Led Digitalization and Automation project (Gold Award) 2017
 - Enhanced Ice-cream Market Read Index of South Korea (Gold Award) 2017
 - Enhanced FMCG Market Read Index of South Korea and boosted client satisfaction (Gold Award) 2015
- **Certificate**, NielsenIQ 2019
 - Selected as one of the top 20 global data science talents to participate in a leadership development program
- **Certificate**, SungKyunKwan University 2015
 - Awarded as a representative of the Department of System Management Engineering at the commencement
- **National Science and Engineering Scholarship**, Korea Student Aid Foundation 2013 – 2014
 - Awarded to a top student in the Department of System Management Engineering
- **Bronze Award**, Korea Institute of Industrial Engineers 2013
 - Solved industrial problems by building an ML model at a University Student Project Competition
- **Academic Excellence Scholarship**, SungKyunKwan University 2009 – 2011

TALKS AND SEMINARS

MUSE: Music Recommender System with Shuffle Play Recommendation Enhancement

- Top Conference Session of Korea Software Congress (KSC) 2023

REFERENCES

- **Prof. Chanyoung Park**, Assistant Professor, KAIST
 Email: cy.park@kaist.ac.kr
- **Prof. Jong-Seok Lee**, Associate Professor, SungKyunKwan University
 Email: jongseok@skku.edu

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