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, AI4Science (Cell Biology)

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, AI4Science (Cell Biology)
  - 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

[*CV compiled on 2024-03-12 for Acme Corporation*]