

YE JIN JEON

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EDUCATION

University of California, San Diego

Sep 2022 – June 2024

Master of Science, Computer Science in Artificial Intelligence

San Diego, USA

- Courses: Search and Optimization, Unsupervised Learning, Deep Generative Models, Recommender System, Advanced Computer Vision, Principle of Software Engineering, Graduate Networked System, Algorithm Design and Analysis

Ewha Womans University

Mar 2017 – Feb 2022

Bachelor of Science, Double Major (3.6/4.0)

Seoul, Korea

- Majors: Biomedical Engineering, Computer Science and Engineering | Honors: Dean's List (2017, Spring 2018)

WORK EXPERIENCES

Machine Learning Researcher | University of California, San Diego

March 2023 – Present

- Researching constraint optimization problems using SMT solver, aiming to find optimal solutions in large-scale worker scheduling algorithms that satisfy both store requirements and worker preferences
- Took a learning-based approach with SMT solver to find globally optimized solutions efficiently. Discovered schedules with higher objective values with 50 - 200 workers reducing search time by 50%

Software Engineer Intern | Tanker Inc.

Mar 2021 – June 2021

- Led the machine learning based systems development, spearheading migrations of old systems to adopt modern ML based solutions
- Delivered the automated employee assignment system for Industrial Bank of Korea, replacing the old employee assignment system with a reinforcement-learning based solution
- Overhauled the old PDF converter by developing a computer-vision based PDF to Excel converter, reducing errors in PDF reader
- Contributed to the real estate price prediction task, delivered 10% accuracy improvements of existing ML algorithms by incorporating predicted price through linear regression as a training feature

Machine Learning Researcher | Korea University

May 2020 – Sep 2020

- Researched collateral status image generation of Acute Ischemic Stroke patient brain MRIs through 3D multitask learning. Presented work at SPIE Medical Imaging 2021
- Implemented image generation as a regression problem with U-net and improved the performance by adding an ordinal regression task into the final layer of the U-net

Research Intern | Electronics and Telecommunications Research Institute

July 2019 – Aug 2019

- Developed a computer vision model used to detect smuggling and dangerous goods from airport security images
- Implemented a masking algorithm to create training labels and trained SSD, YOLO, and RCNN based object detection models

Research Intern | Ewha Womans University

Mar 2018 – July 2019

- Led research on lesion classification in wireless capsule endoscopy, and gave oral presentation at IWAIT-IFMIA 2019

KEY PROJECTS

Roomie

Jan 2023 – March 2023

- Worked with a team of 5 to create a roommate finder website using Vue.js and implemented REST APIs for searching and connection services using Java Spring Boot

Surfstore: Fault-Tolerant Cloud-based File Storage System

Jan 2023 – March 2023

- Developed a Dropbox-like fault-tolerant cloud-based file storage system using Go language that syncs files to/from the cloud and ensures fault tolerance using RAFT protocol

Recipe Recommender

Sep 2022 – Dec 2022

- Executed sentiment analysis on user reviews and predicted user ratings on recipes through collaborative filtering

CONFERENCE PAPERS

- H.L. Le, **Y. Jeon**, H.G. Roh, H.J. Kim, and J.T. Kwak. "3-D multitask deep neural networks for collateral imaging from dynamic susceptibility contrast-enhanced magnetic resonance perfusion." SPIE Medical Imaging 2021: Computer-Aided Diagnosis (SPIE), 2021.[\[paper\]](#)
- **Y. Jeon**, E. Cho, S. Moon, S.H. Chae, and J.H. Choi. "Deep convolutional neural network-based automated lesion detection in wireless capsule endoscopy." Joint International Workshop on Advanced Image Technology (IWAIT) and International Forum on Medical Imaging in Asia (IFMIA), 2019.[\[paper\]](#)

TECHNICAL SKILLS

Python, Java, C, Go, HTML, CSS, JavaScript, Vue.js, Spring Boot, Django, PyTorch, TensorFlow, GitHub, Docker, Linux