# Jae Woo So

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# Summary

- Current Job List -

### [Finance Industry]

- 1. R&D on machine learning-based investment and asset management methodologies
- 2. R&D on Al-powered ESG rating and consulting
- Past Job List -

[Bio & Healthcare Industry]

- 1. Analysis omics data with deep learning
- 2. Integrated deep learning predict system based on medical image & gene expression data
- 3. Machine Learning-based Drug Response Prediction Study

#### [Semiconductor industry]

- 1. R&D of machine learning-based wafer non-destructive inspection algorithm.
- 2. R&D of computer vision-based display panel inspection algorithm

## **Experience**

## Machine Learning Researcher

Daishin Economic Research Institute

Sep 2020 - Present (2 years 2 months +)

Worked on applying machine learning technology to financial engineering and ESG evaluation services.

- Development of real-time news analysis system for ESG risk and classification
- Corporate equity structure visualization modeling
- Development of investment model based on machine learning model
- Media data-based enterprise ESG risk prediction
- Development of automatic collection and classification system for Fair Trade Commission deliberation and decision data

## Artificial Intelligence Researcher

Theragen Bio

Apr 2018 - Sep 2020 (2 years 6 months)

I research & develop a.i based solution for omics, clinical, and medical image data.

- Predictive modeling based on genetic data.
- Predict patient drug responsiveness with clinical data.
- Classification of cancer types by medical image data.
- Classification of health status with microbiome data.

# **Research Engineer**

Etamax

Nov 2015 - Apr 2018 (2 years 6 months)

Main job is "Customized Measurement Machine Development". Client want

- Skill -
- · Data Analysis.
- · Model Design
- · Machine Learning, Deep Leaning
- Computer Vision

## **Education**



## Kyushu University

Master of Engineering - MEng, Artificial Intelligence

2012 - 2015

Paper - Swarm Reinforcement Learning Algorithm with Characterized Agents Reinforcement Learning, Optimization, System Desgin

# Kyushu University

Bachelor of Engineering - BE, Electrical Engineering and Computer Science 2008 - 2012

## **Licenses & Certifications**

- How Google does Machine Learning Google Cloud Training Online QK8FF7ZBBN59
- Launching into Machine Learning Google Cloud Training Online Y23EUA5M2VPP
- Architecting with Google Kubernetes Engine: Foundations Google Cloud **Training Online** Z2S24HK6SC9W
- Architecting with Google Kubernetes Engine: Workloads Google Cloud Training Online 5GQPTV8RQJG7
- Architecting with Google Kubernetes Engine: Production Google Cloud Training Online **UPGCUXSC35FS**
- TensorFlow on Google Cloud Google Cloud Training Online

- Feature Engineering Google Cloud Training Online 5L95WEK9V6K4
- Machine Learning in the Enterprise Google Cloud Training Online 58XHK58ZMC9L
- Production Machine Learning Systems Google Cloud Training Online Z9ARHV2JEEZP
- End-to-End Machine Learning with TensorFlow on Google Cloud Google Cloud Training Online UYUSCW68U36J
- Machine Learning on Google Cloud Specialization Google Cloud Training Online 582ZT8UGBKHN

### **Skills**

Artificial Intelligence (AI) • Machine Learning • Kubernetes • MLOps • PyTorch • TensorFlow • Deep Learning • Python (Programming Language)

#### **Honors & Awards**

[2nd place] Gimhae Fire Prediction Competition - Korea Land and Housing Corporation (LH)

Dec 2019

The city of Gimhae intends to contribute to the efficient distribution of administrative power by converging firefighting and building-related information to analyze and predict the fire risk in the region, and use it to conduct intensive and active fire prevention activities.

I use firefighting and building-related data collected by Gimhae City to present a fire risk analysis and prediction model for buildings.

[2nd place] CTD-squared Pancancer Drug Activity DREAM Challenge -

Columbia University, Sage Bionetworks, NIH/NCI, CTD2, Mount Sinai School of Medicine, Heidelberg University, Semmelweis University

Apr 2020

The goal of the CTD2 Pancancer Drug Activity DREAM Challenge is to foster the development and benchmarking of algorithms to predict targets of chemotherapeutic compounds from post-treatment transcriptional data.

I developed a machine learning model to predict drug responsiveness from genetic data. First, dimensionality reduction modeling of genetic data was performed. Second, we studied drug responsiveness predictive modeling with reduced genetic data.