Insu leon

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Phone: 010-3531-2996 Seoul, South Korea

EDUCATION

SEOUL NATIONAL UNIVERSITY (SNU), SEOUL, KOREA

SEP 2012 - AUG 2023

Ph.D. in Computer Science, specializing in Machine Learning (ML) and Artificial Intelligence (AI)

(GPA: 3.95 / 4.3)

UNIVERSITY OF CALIFORNIA, LOS ANGELES (UCLA), USA

SEP 2009 – MAR 2012

Bachelor of Science in Computer Science, and Minor in Statistics

(GPA: 3.38 / 4.0)

WORK EXPERIENCES

AI RESEARCHER, VISION AND LEARNING LABORATORY, SNU

MAR 2017 - PRESENT

Conducted advanced research in Generative models, Natural Language Processing (NLP), and Bayesian meta-learning. AI RESEARCHER, EVER-DOUBLING LLC. JUN 2021 - DEC 2021

Participated in AI Grand Challenge; developed a math problem-solving AI engine using a General Language Model.

CHIEF TECHNOLOGY OFFICER, RIPPLEAI FEB 2018 - DEC 2019

Managed a team of 9 developers and engineers; developed an Instagram comment-generating bot.

MACHINE LEARNING RESEARCHER, ARTIFICIAL INTELLIGENCE LABORATORY, SNU

SEP 2012 - SEP 2016

Developed ML algorithms for computer vision tasks such as defect detection, super-resolution, and registration.

PROJECTS

UNSUPERVISED LEARNING-BASED DATA GENERATION RESEARCH, AGENCY FOR DEFENSE DEVELOPMENT (ADD)

Jun 2022 - Present

Improved military object recognition performance by 10% via Generative model-based data augmentation.

NEURAL PROCESSING SYSTEM RESEARCH, SAMSUNG ADVANCED INSTITUTE OF TECHNOLOGY

MAR 2018 - SEP 2019

Contributed to Samsung's core AI vision technology, and organized group activities for researchers.

COMPUTER VISION PROJECTS, SAMSUNG DEVICE SOLUTIONS INSTITUTE

MAR 2013 - SEP 2017

Optimized defect-monitoring systems in semiconductor display (SEM/OLED) production lines.

PUBLISHED PAPERS

FEDERATED LEARNING WITH META-VARIATIONAL DROPOUT

UNDER REVIEW

Presented at a high-rank ML conference, Neural Information Processing Systems (NeurIPS) 2023.

NEURAL VARIATIONAL DROPOUT PROCESSES

Apr 2022

Published at a high-rank ML International Conference on Learning Representation (ICLR) 2022.

IB-GAN: DISENTANGLED REPRESENTATION LEARNING WITH INFORMATION BOTTLENECK GENERATIVE ADVERSARIAL NETWORKS

May 2021

Published at a high-rank AI conference, Association for the Advancement of Artificial Intelligence (AAAI) 2021.

BLIND IMAGE DECONVOLUTION USING STUDENT'S-T PRIOR WITH OVERLAPPING GROUP SPARSITY

Mar 2017

Published at a high-rank International Conference on Acoustic, Speech, and Signal Processing (ICASSP) 2017.

SPATIAL KERNEL BANDWIDTH ESTIMATION IN BACKGROUND MODELING

SEP 2016

Published at International Conference on Machine Vision (ICMV) 2016.

AWARDS

 $\mathbf{1}^{\text{TH}}$ KBIG-CONTEST – NATIONAL INFORMATION SOCIETY AGENCY

DEC 2013

Developed Twitter hot issue forecaster using NLP algorithm and placed an encouragement award.

TEACHING EXPERIENCE

SPECIAL LECTURES ON BAYESIAN DATA ANALYSIS AND STATISTICAL INFERENCE - GSSHOP

May 2019

Delivered lectures on Bayesian theory and statistical inference techniques for commercial data analysis.

PRACTICAL GUIDE TO DEEP LEARNING - KOREA BANKING INSTITUTE

Mar 2019

Jun 2017

MAY 2017

Conducted lectures on Deep Learning and Natural Language Processing. INTRODUCTION TO GENERATIVE MODEL WITH PYTORCH - FASTCAMPUS

Taught courses on Deep Generative model and Bayesian Deep Learning.

SEP 2017 - SEP 2018

SPECIAL ISSUES IN MACHINE LEARNING AND DEEP LEARNING - SEOKYONG UNIVERSITY

Performed lectures on Modern developments in Machine Learning, Deep Learning, and Artificial Intelligence.

PREREQUISITE COURSES FOR ARTIFICIAL INTELLIGENCE - SNU 4TH INDUSTRIAL REVOLUTION ACADEMY

Prerequisite courses for understanding Artificial Intelligence - Linear Algebra, Probability, and Statistics.

TECHNICAL SKILLS

COMPUTER SKILLS:

Python, C/C++, Java, JavaScript, Objective C, OpenMP, CUDA, HTML, Bash, Windows, Mac OS, Linux

LANGUAGES:

Korean (native), English (proficient)