WONHO BAE

Computer Vision Researcher

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RESEARCH EXPERIENCE

Research Assistant
Vision & Learning Lab at Seoul National University

📅 February 2018 – September 2020   📍 Seoul, South Korea

– Supervisor: Prof. Gunhee Kim
– Improved the detection performance of small objects using Generative Adversarial Network in Faster R-CNN framework, and revised class activation mapping for weakly-supervised object localization.

Research Fellow
Data Science for Common Good Fellowship at UMass

📅 May 2019 – August 2019   📍 Amherst, Massachusetts

– Supervisor: Dr. Brant Cheikes, Prof. Matthew Rattigan
– Conducted a research on classifying wild animal camera trap images along with The Nature Conservancy. Deployed an open-source tool for ecologists.

Research Assistant
Renewable & Appropriate Energy Lab at UC Berkeley

📅 January 2017 – December 2017   📍 Berkeley, California

– Supervisor: Prof. Daniel Kammen, Prof. Deborah Sunter
– Participated in the Inclusive Green Growth project. Worked on keyword detection task using NLP. Currently writing a book to publish.

WORK EXPERIENCE

Course Grader
University of Massachusetts, Amherst

📅 September 2019 – December 2019   📍 Amherst, MA

– Involved in grading and developing assignments for Computer Vision course.

Signals Intelligence Analyst
Republic of Korea Army

📅 February 2015 – November 2016   📍 Chuncheon, South Korea

– Served in the intelligence battalion of the 2nd Corps of the Republic of Korea Army for 21 months as a signals intelligence analyst.

SELECTED PUBLICATIONS

[1] **Wonho Bae***, Junhyug Noh*, Gunhee Kim, "Rethinking Class Activations Mapping for Weakly Supervised Object Localization," in **ECCV 2020**, online.

[2] Junhyug Noh, Kyung Don Yoo, **Wonho Bae**, ..., Gunhee Kim, "Prediction of the Mortality Risk in Peritoneal Dialysis Patients using Machine Learning Models: A Nation-wide Prospective Cohort in Korea", in **Scientific Reports (2020)** by Nature Publishing Group.

[3] Junhyug Noh, **Wonho Bae**, Wonhee Lee, Jinhwan Seo and Gunhee Kim, "Better to Follow, Follow to Be Better: Towards Precise Supervision of Feature Super-Resolution for Small Object Detection," in **ICCV 2019**, Seoul, Korea.

EDUCATION

PhD in Computer Science
University of British Columbia

📅 Sep 2020 – Present   GPA: NA

Master's in Computer Science
University of Massachusetts, Amherst

📅 Sep 2018 – May 2020   GPA: 3.78

Bachelor's in Statistics
University of California, Berkeley

📅 Sep 2013 – Dec 2017   GPA: 3.75

Associate's in Economics
Santa Monica C College

📅 Sep 2011 – May 2013   GPA: 3.95

SKILLS

Python   Java   R   PyTorch   Tensorflow   PostgreSQL   Git

COURSEWORKS

Computer Vision   NLP   Optimization   ML   Probabilistic Graphical Model   AI

AWARDS

Weak Supervision Competition - 1st
CVPR 2020 Workshop

📅 June 2020

Data Science Fellowship
University of Massachusetts, Amherst

📅 May 2019 – August 2019

Travel Grant
Hanse-Wissenschaftskolleg Institute for Advanced Study, Germany

📅 August 2018

Exemplar Soldier Award
Republic of Korea Army

📅 September 2016

PRESENTATIONS

- Hosted AI Summer Seminar at UMass.
- Gave a talk at Institute of Advanced Study, Germany in August 2018.