

WONHO BAE

Computer Vision Researcher

@ bwh0324@gmail.com

+82 10-2737-7434

Suwon, S. Korea

in linkedin.com/in/wonho-bae

https://won-bae.github.io/

RESEARCH EXPERIENCE

Research Assistant

Vision & Learning Lab at Seoul National University

February 2018 – Present

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

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

C++

Java

R

PyTorch

Tensorflow

PostgreSQL

Git

COURSEWORKS

Computer Vision

NLP

Optimization

ML

Probabilistic Graphical Model

AI

Neural Network

Stochastic Process

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, Amherst Summer 2019.
- Gave a talk about the Inclusive Green Growth project at Institute of Advanced Study, Germany in August 2018.