

WONHO BAE

Machine Learning and Computer Vision Researcher

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RESEARCH EXPERIENCE

Research Intern

Borealis AI

May 2022 – Sep 2022

Vancouver, British Columbia

- Supervisor: Dr. Gabriel Oliveira, Dr. Fred Tung, Dr. Mohamed Ahmed
- Proposed a novel meta learning framework for temporal point processes using neural point processes.

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.

SELECTED PUBLICATIONS

- [1] **Wonho Bae**, Mohamed Osama Ahmed, Gabriel Leivas Oliveira, Frederick Tung, "Meta Temporal Point Processes", in **ICLR 2023**, Kigali.
- [2] Yi Ren, Shangmin Guo, **Wonho Bae**, Danica J. Sutherland, "How to Prepare Your Task Head for Finetuning", in **ICLR 2023**, Kigali.
- [3] Mohamad Amin Mohamadi*, **Wonho Bae***, Danica J. Sutherland "Making Look-Ahead Active Learning Strategies Feasible with Neural Tangent Kernels", in **NeurIPS 2022**, New Orleans.
- [4] **Wonho Bae**, Junhyug Noh, Milad Jalali Asadabadi, Danica J. Sutherland, "One Weird Trick to Improve Your Semi-Weakly Supervised Semantic Segmentation Model", in **IJCAI 2022**, Vienna.
- [5] **Wonho Bae***, Junhyug Noh*, Gunhee Kim, "Rethinking Class Activations Mapping for Weakly Supervised Object Localization", in **ECCV 2020**, online.

TEACHING EXPERIENCE

Teaching Assistant

University of British Columbia & University of Massachusetts, Amherst

2019, 2021, 2022, 2023

Vancouver, BC and Amherst, MA

EDUCATION

PhD in Computer Science

University of British Columbia

Sep 2020 – Present

GPA: 4.00

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

R

PyTorch

Tensorflow

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

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