WONHO BAE

Machine Learning and Computer Vision Researcher

whbae@cs.ubc.ca +1 604-396-7539 Vancouver, BC linkedin.com/in/wonho-bae https://won-bae.github.io/

RESEARCH EXPERIENCE

Research Intern

Borealis AI

Summer 2022, May 2023 – present 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 pooint 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.