WONHO BAE

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Research enthusiast with a focus on computer vision, specifically for **self and weakly supervised** learning in **object recognition** framework. Currently pursuing master's degree in Computer Science at UMass and actively conducting a research on weakly supervised object localization task. Looking for a PhD position for Fall 2020.

EDUCATION

University of Massachusetts, Amherst *Sep 2018 - Present*
Master of Computer Science

University of California, Berkeley *Sep 2013 - Dec 2017*
Bachelor of Statistics

Santa Monica College *Sep 2011 - May 2013*
Associate of Economics, member of Alpha Gamma Sigma

RESEARCH EXPERIENCE

Computer Vision Lab at Seoul National University *Feb 2018 - Present*
Research Intern
- Supervisor: Prof. Gunhee Kim
- Conducted a research on small object detection using Generative Adversarial Network in Faster R-CNN framework. Accepted to ICCV 2019. - Currently working on weakly-supervised object localization task targeting to CVPR2020.

Data Science for Common Good Fellowship at UMass *May 2019 - Aug 2019*
Research Fellow
- Supervisor: Dr. Brant Cheikes, Prof. Matthew Rattigan
- Conducted a research on classifying wild animal images collected using camera traps in collaboration with The Nature Conservancy. Deployed a web-based open-source tool for ecologists.

Renewable & Appropriate Energy Lab at UC Berkeley *Jan 2017 - Dec 2017*
Research Assistant
- Supervisor: Prof. Daniel Kammen, Prof. Deborah Sunter
- Participated in the Inclusive Green Growth porject. Worked on keyword detection task using Natural Language Process techniques to replace synonyms and pronouns in the text. Currently writing a book to publish.

PUBLICATIONS

[1] 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 International Conference on Computer Vision (ICCV 2019), Seoul, Korea, Oct 2019

WORK EXPERIENCE

Republic of Korea Army *Feb 2015 - Nov 2016*
Signals Intelligence Analyst
- Served in the intelligence battalion of the Republic of Korea Army for 21 months as a signals intelligence analyst.

AWARD & SCHOLARSHIP

Data Science for Common Good Fellowship at UMass *May 2019 - Aug 2019*

American Math Competitions *2011 - 2012*
*3*rd place in 2011 and *1*st place in 2012

TEACHING

Grader
Computer Vision (COMPSCI 670) *Fall 2019*

SEMINARS

Seminar for Inclusive Green Growth at Institute of Advanced Study, Germany *Aug 2018*
Gave a presentation about a data-driven approach for measuring ecological growth of different countries and regions using Natural Language Process based on literature published so far.

AI Summer Seminar *Summer 2019*
Hosted AI seminar at UMass during Summer of 2019. Discussed various topics related to AI including but not limited to computer vision, natural language process and planning.

TECHNICAL SKILLS

Programming: Python, C++, R, SQL
Deep Learning Tools: Pytorch, Tensorflow