# Wonjoon Goo

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# Research Interest

Reinforcement Learning, Computer Vision, Machine Learning, and Robotics

#### Education

Ph.D. in Computer Science
University of Texas at Austin

Master in Computer Science
University of Texas at Austin

GPA 4.0/4.0

B.S. in Computer Science and Engineering (Summa Cum Laude, 3/56)

Seoul National University

GPA 4.03/4.3 GPA in major 4.07/4.3

Exchange Student in Computer Science Dept.

Aug.2016-Current

Aug.2016-Current

Aug.2016-Current

Sep.2016-Dec.2018

Sep.2016-Dec.2018

Sep.2014-Dec.2014

# Work and Research Experience

Research Intern May.2018-Aug.2018

Preferred Networks, Tokyo, Japan

Advisor: Tommi Kerola, Toru Ogawa

• Topic: video object segmentation (VOS)

Achieved 4th place on the 1st Large-scale Video Object Segmentation Challenge

#### Lead Web Programmer

University of Toronto GPA in major 4.0/4.0

Apr.2016-Jun.2016

Art247, Paju, Korea

 Developing commercial website with Django web framework Site link: https://m314.kr

#### Undergraduate Research Intern

Mar.2015-Apr.2016

Vision&Learning Laboratory, Seoul National University

Advisor: Prof. Gunhee Kim

• Improving CNN performance using external information such as taxonomy

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Collaborated with Prof. Sung Ju Hwang in Ulsan National Institute of Science and Technology

• Developing a motion planning algorithm in a humanoid robot using deep learning Collaborated with Prof. Jehee Lee in Seoul National University

#### Lead Server Programmer

Dec.2010-Jan.2014

Ani-Park, Seoul, Korea

- Developing a distributed game server software with C++
- Maintaining RDBMS for game data with SQL
- Developing a web interface for managing clients with Node.js
- Served as an alternative military service agent

#### **Summer Programming Intern**

Jun.2010-Aug.2010

Redduck, Seoul, Korea

Implementing game logic using Unreal Engine

#### Honors and Awards

Graduate Dean's Prestigious Fellowship Supplement, UT Austin

2017-2019

Kwanjeong Educational Foundation Fellowship

2016-2020 (Expected)

Excellent CSE Thesis Awards, Seoul National University

2016

National Scholarship for Science and Engineering

2008-2010, 2014

• Full tuition & fees during regular college years, funded by Korea Student Aid Foundation

Outgoing Exchange Student Scholarship

2014 Fall

• \$2000 from Office of International Affairs

# **Teaching Experience**

Graduate Teaching Assistant at UT Austin

2019 Fall

• CS 394R, Reinforcement Learning: Theory and Practice

Graduate Teaching Assistant at UT Austin

2016 Fall

• CS 313E, Elements of Software Design

Samsung Convergence Software Course (SCSC) Mentoring Program

Mar.2015-Dec.2015

• Choosen as a mentor to help students coming for double major in CSE

#### Skills

Programming Language and Databases

Python, C++, SQL (Experienced) / Matlab, NoSQL (mongodb), javascripts (Intermediate) / Vim, CUDA, Scala (Interested)

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## Deep Learning Framework

Tensorflow, Chainer, Caffe, Torch (Experienced)

## **Publications**

### International Conferences

1. Daniel Brown, **Wonjoon Goo\***, and Scott Niekum. *Ranking-Based Reward Extrapolation without Rankings*. Conference on Robot Learning (CoRL), Osaka, Japan, 2019. (To Appear)

- 2. Daniel Brown\*, **Wonjoon Goo**\*, and Scott Niekum (\*equal contribution). Extrapolating Beyond Suboptimal Demonstrations via Inverse Reinforcement Learning from Observations. International Conference on Machine Learning (ICML). Long Beach, CA, 2019.
- 3. Wonjoon Goo and Scott Niekum. One-Shot Learning of Multi-Step Tasks from Observation via Activity Localization in Auxiliary Video. International Conference on Robotics and Automation (ICRA). Montreal, Canada, 2019.
- 4. Wonjoon Goo, Juyong Kim, Gunhee Kim, and Sung Ju Hwang. *Taxonomy-Regularized Semantic Deep Convolutional Neural Networks*. European Conference on Computer Vision (ECCV). Amsterdam, The Netherlands, 2016.

Last updated: September 16, 2019