Wonjoon Goo

Research Interest

Reinforcement Learning, Computer Vision, Machine Learning, and Robotics

Education

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

B.S. in Computer Science and Engineering (Summa Cum Laude, 1/38)

Seoul National University

GPA 4.03/4.3 GPA in major 4.07/4.3

Exchange Student in Computer Science Dept.

University of Toronto

Sep.2014-Dec.2014

Work and Research Experiences

Graudate Research Assitant

GPA in major 4.0/4.0

Jan.2017-Current

Personal Autonomous Robotics Lab, University of Texas at Austin

Advisor: Prof. Scott Niekum

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

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

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 Experiences

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)

Deep Learning Framework

Tensorflow, Chainer, Caffe, Torch (Experienced)

Wonjoon Goo

Publications

International Conferences

1. Wonjoon Goo, Juyong Kim, Gunhee Kim, and Sung Ju Hwang. *Taxonomy-Regularized Semantic Deep Convolutional Neural Networks*. European Conference on Computer Vision (ECCV 2016). Amsterdam, The Netherlands. 2016.

2. 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 2019 (ICRA 2019). Montreal, Canada. 2019.

In progress

1. **Wonjoon Goo**, Daniel Brown, and Scott Niekum. *Extrapolating Beyond Suboptimal Demonstrations via Inverse Reinforcement Learning from Observations*.

Last updated: February 19, 2019