

# JANG, TAE-UK

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International Student(F-1)

## EDUCATION

**M.S. in Electric and Computer Engineering**, Purdue University, West Lafayette

Aug. 2018 ~

GPA: 3.78/4.0

Relevant coursework includes:

**Machine Learning, Artificial Intelligence, Digital Image Processing, Digital Video Processing, Linear Algebra, Random Variables and Signals**

**B.S. in Electronic and Electrical Engineering**, Korea University, Seoul

~ Feb. 2018

GPA (major): 4.17/4.5

Relevant coursework includes:

**Computer Vision, Control Theory, Data Structure and Algorithm, Digital Signal Processing, Applied Statistics, Signal and System, Digital Image processing**

## RESEARCH EXPERIENCE

C-design lab (Directed by Prof. Ramani)

West Lafayette, IN

Position: Research Intern (3D Vision team)

April 2019 ~

- ✓ Participating in development of deep learning based real-time 6D object pose estimation
- ✓ Generating RGB-D dataset and pre-processing for aligning RGB-D with thermal camera
- ✓ Developing state-of-the-art point cloud upsampling and reconstruction

TeeLabs

Seoul, Korea

Position: Intern (Algorithm development team, R&D Department)

Sep. 2017 ~ Feb. 2018

- ✓ Developing state-of-the-art algorithm that renders accurate indoor 3D maps
- ✓ Detecting detail of objects and dividing object meshes automatically
- ✓ Optimizing server which is to revise and view the images.

Komatsu Inc.

Komatsu, Japan

Position: Intern (Manufacturing robot Team, Manufacturing Department)

Feb. 2016

- ✓ Monitored errors, assisted communication between Beijing Hyundai and Komatsu.
- ✓ Developed resilient path for manufacturing robots for further changes.
- ✓ Provided overall assistance with translation of sales documents.

## PROJECT EXPERIENCE

Developed channel attention module that boosts the accuracy of the current deep networks with less computational additions

Final project of ECE634 (Digital Video Processing)

Building Spatial Transformer Network (2015, NIPS) for MNIST classification with PyTorch from scratch

Final project of ECE570 (Artificial Intelligence)

## PUBLICATIONS

Journal Publications

[J1] C. J. Nam, Taeuk Jang and N. L. Doh, "Generating Topological maps for the Perception of Mobile Robots in 3D Environments," *Korea Robotics Society Conference (KRoC)*, 2018

Conference Publications

[C1] C. J. Nam, Taeuk Jang and N. L. Doh, "Generating Topological maps for Autonomous Navigation using the Sparsest Graph Cut Method," *The Institute of Electronics and Information Engineers (IEIE)*, 2018 (under review)

## **AWARDS & SCHOLARSHIP**

Sukrim Honor Scholarship (1 out of 200), Korea University, 2015

Award of **academic excellence (10 out of 200)**, Korea University, 2014-2017 (**6 consecutive semesters**)

Honor scholarship, City of Ulsan, 2017

## **PROGRAMMING SKILLS**

Python / C / C++ / Matlab / Elixir / Linux

PyTorch / Tensorflow

ROS / OpenCV

PSPICE / Solidworks / CAD / Premier pro / git

## **LANGUAGE SKILLS**

Korean: native

English: fluent

## **MILITARY SERVICE**

Republic of Korea Army

Served as Squad Commander

*Choongju, Korea*

*2012 - 2014*