

# Won Hee (Jenny) Kim

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## WORK EXPERIENCE

**CENTER FOR ROBOTICS AND BIOSYSTEMS** | Evanston, IL | Jun 2019 – Sep 2019  
*Emergent Behavior Research Aide, Murphey Lab*

- Developed a vision tracking system for dynamics of synthetic cells and “smarticle” robots using Python as part of an emergent behavior project
- Optimized design of experimental setup for accurate tracking of “smarticle” robot positions, orientations, and servo angles
- Assist with building of “smarticle” mechanical and electrical parts

**CHERVON NORTH AMERICA** | Naperville, IL | Sep 2018 – Dec 2018  
*Mechanical Engineering/Product Development Co-Op Student*

- Worked with circular saw, miter saw, and table saw cross-functional, front-end teams on product development for the SKILSAW brand
- Presented testing data, existing solutions, and design recommendations to stakeholders during sprint reviews
- Troubleshooting testing fixtures for durability of parts

**FIGUEROA GROUP, NU PHYSICS DEPT.** | Evanston, IL | Oct 2017 – Feb 2019  
*SuperCDMS/Micro-X Undergraduate Research Aide*

- Worked with the SuperCDMS (Cryogenic Dark Matter Search) team at Northwestern, part of a collaboration of 25 institutions and laboratories
- Worked on Micro-X, a NASA-funded dark matter search rocket project
- Designed all cold electronics PCBs (as cold as 30 mK) for a new testing facility 107m underground at Fermi National Accelerator Laboratory

## PROJECTS

**ROBOT DESIGN STUDIO** | Evanston, IL | Jan 2020 – Present

- Collaborate with graduate and undergraduate students to design and build a robot that can perform skateboarding tricks
- Develop mechanical design of robot with SolidWorks
- Calculated requirements to select motors, transmissions, and amplifiers

**ORGANIC FERTILIZER APPLICATION** | Evanston, IL | Jan 2020 – Present

- Work with a co-op in Thailand to develop an application method and device for a UV-sensitive organic fertilizer
- Prototype and test potential solutions
- Assure design for assembly for product to be shipped to Thailand

## LEADERSHIP

**NORTHWESTERN UNIVERSITY DANCE MARATHON** | Sep 2017 – Present  
*Stage Manager, Productions Committee (Sep 2019 – Present)*  
*Video Lead, Productions Committee (Sep 2017 – Jun 2019)*

- Stage manager and video lead for one of the largest student-run philanthropies in the US (1,000+ participants, \$1 mil+ raised every year)
- Schedule, coordinate, manage, and train for all rotations and video-related tasks with 20+ members for the entire 30-hour event

## EDUCATION

**NORTHWESTERN UNIVERSITY**

*Bachelor of Science in Mechanical Engineering*  
*Segal Design Certificate*

GPA: 3.38/4.00

Major GPA: 3.51/4.00

Expected Graduation: June 2020

**HONG KONG INTERNATIONAL SCHOOL**

GPA: 3.86/4.00

Graduated June 2016

## SKILLS/TRAITS

### TECHNICAL

*Full working proficiency*

SolidWorks, NX, Pro-E/Creo, Python, MATLAB, C/C++, ANSYS Static Structural, Word, Excel, PowerPoint, HTML/CSS

*Some proficiency*

COMSOL Multiphysics, ANSYS Fluent, ANSYS Mechanical APDL, Arduino, IGOR Pro

### PROJECT

Engineering Documentation

Project Management

Iterative Prototyping

GD&T

Design of Experiments

PCB Design

Computer Vision

### LANGUAGE/BACKGROUND

Fluent in Korean

Basic-intermediate knowledge of Spanish

Have studied/worked/lived in 5 countries

## RELEVANT COURSEWORK

- Intro to Mechatronics
- Robot Design Studio
- Machine Dynamics
- Manufacturing Processes
- Intro to Programming I, II
- Human-Centered Product Design