

# Sang Kim

New York, NY

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## Education

### New York University

New York, NY

B.S. MECHANICAL ENGINEERING, MAJOR GPA: 3.51/4.00, CUMULATIVE GPA: 3.27/4.0

Aug 2016 - May 2020

- **Dr. Morris Young Outstanding Project Award:** "WOOMBA", Spring 2020 ; **Dean's Award:** "Parking Lot Project", Spring 2020
- **Organizations:** Othmer Hall Council, ASME, Society of Asian Scientists and Engineers

## Experience

### Dash 7 Design - Anish Kapoor Sculpture

New York, NY

PROJECT MANAGER

Jul 2020 - current

- Streamlining weld remediation of a 20 ft tall, 40 ton, stainless steel bean sculpture by creating and managing multiple working progress sheets in MS Excel, decreasing project lead times by up to 50%
- Interfacing with sub-contracted engineers to design load transfer props utilized in cable suspending the sculpture
- Producing/managing BOMs and DXF files for CNC fabrication of the load transfer props (est cost of \$16,0000)
- Assisting engineers and welders on-site by preparing remediation material using angle grinders and portable band saw

### WOOMBA

New York, NY

LEAD DESIGN ENGINEER

Aug 2019 - May 2020

- Designed the framework of a compact, remotely operated trash-removal water vehicle (ROV) using SolidWorks
- Reduced empty weight of ROV by 25% and optimized material selection using static structural simulations in ANSYS
- Optimized layout of conveyor belt sub-assembly, payload bin, and electronics to improve dynamic stability of ROV by 70%
- Developed 2D drawings (manufacturing and information) and worked with machinist to water jet cut parts

### NYU Dibner IT

New York, NY

SPECIALIZED DESIGN LEAD

Nov 2018 - Apr 2020

- Collaborated with hardware and software engineers to implement a population density tracking system in a library
- Designed and 3D printed housing units for over 500 sonar sensors and 50 Raspberry Pi's with PCBs using SolidWorks
- Implemented tamper-proof screws in RPI/PCB case design to secure over \$1000 of hardware and minimize presence
- Drafted floorplans with electrical schematic to reduce installation lead time by 50% using AutoCAD and SolidWorks

### MakerBot Industries

New York, NY

MATERIALS AND TEST ENGINEERING INTERN

Sep 2019 - Dec 2019

- Automated a material testing apparatus to double testing speed using an integrated LabVIEW program
- Developed data processing script in R to generate material behavior graphs from imported raw testing data
- Presented testing data, testing procedures, and material characteristic to VP of Engineering and senior test engineers

### NYU Aerospace - SAE Aero Advanced Class

New York, NY

DESIGN AND MANUFACTURING ENGINEER

Oct 2018 - Apr 2019

- Redesigned wing box and fuselage using SolidWorks Simulations after failed test flight, reducing empty weight by 30%
- Implemented manufacturing standards to rebuild the aircraft in 90 hours, reducing construction time by over 75%
- Reduced stress concentration on center wing box by 60% through static structural analysis in SolidWorks Simulations

## Skills

**Software** SolidWorks, AutoCAD, CATIA v5, KeyShot8, ANSYS Workbench (Structural Analysis), MATLAB, LabVIEW

**Processes** GD&T (ASME Y14.5-2009), Research & Development, Developmental Design, Design for Manufacture/Assembly  
Rapid Prototyping/Machine Shop (3D Printing, Laser Cutting, CNC, Power Tools)

**Misc. Tech.** Mac, Windows, BASH, Git, Adobe Creative Suite, Microsoft Office, Raspberry Pi, Arduino

**Certifications** OSHA 30 Certification