

# 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:** "The ParkingLot Project", Spring 2020
- **Organizations:** Othmer Hall Council, ASME, Society of Asian Scientists and Engineers

## Experience

### Dash 7 Design - Anish Kapoor Sculpture

New York, NY

FIELD ENGINEER

Jul 2020 - current

- Designing and fabricating steel structural columns using SolidWorks and ANSYS Workbench
- Streamlining management of over 2000 weld inspection data points (daily) for ANSYS structural and thermal analysis
- Collaborating with structural engineers to optimize analysis parameters to reduce project lead time by 25%

### WOOMBA

New York, NY

LEAD DESIGN ENGINEER

Aug 2019 - May 2020

- Designed the framework of a payload carrying remotely operated vehicle (ROV) using SolidWorks
- Reduced empty weight of ROV by over 25% using ANSYS Workbench static structural simulations
- Optimized ROV design and configuration to improve dynamic stability by 70% and double surface area for interfaces
- Developed 2D drawings and Bill of Materials and led design review meetings to validate design specifications

### NYU Dibner IT

New York, NY

SPECIALIZED DESIGN LEAD

Nov 2018 - Apr 2020

- Collaborated with hardware and software engineers to spearhead the implementation of a population density web app
- Prototyped housing units (SolidWorks) for over 500 ultrasonic sensors and 50 microcomputers utilized in human detection
- Implemented anti-theft features in microcomputer cases to secure over \$1000 of hardware using SolidWorks Simulations
- 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 material testing data, testing procedures, and material pros/cons 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)

**Processes** DFA/DFM, 2D Drafting/Drawing, GD&T, Rapid Prototyping (3D Printing, Machining, Laser Cutting, Waterjet), Design Calculation, Strategic Planning

**Languages** RStudio, MATLAB, Python, LabVIEW, HTML/CSS, JavaScript, Bootstrap

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

**Certifications** OSHA 30 Certification