

Sang Won Kim

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EDUCATION

New York University

New York, NY | Aug 2016 – May 2020

B.S. Mechanical Engineering

GPA: 3.27 | Major GPA: 3.51

Honors: Dr. Morris Young Outstanding

Project Award – WOOMBA; Dean's

Award – Parking Lot Project

Organizations: ASME, SASE

SKILLS

Software:

SolidWorks, AutoCAD, ANSYS,

KeyShot, MATLAB, LabVIEW

Processes:

Engineering Drawings, Production

Drawings, GD&T (ASME Y14.5-2009),

R&D, Developmental Design,

DFA/DFM, Rapid Prototyping (Bench

Tools, Power Tools, 3D Printing,

Laser Cutting, 3-Axis CNC)

Misc. Tech:

Mac, Windows, Adobe Creative Suite,

Microsoft Office, Raspberry Pi,

Arduino, BASH, GIT

Certifications:

OSHA 30 Hour

EXPERIENCE

Dash 7 Design / Anish Kapoor | Project Manager

New York, NY | Jul 2020 – current

- Streamlining remediation of a 20 ft tall, 40-ton, stainless steel art installation sculpture by creating multiple progress management 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
- Creating production drawings, BOMs, & DXF files for CNC manufacturing of permanent structural prop components (est. cost of \$14,000)
- Assisting engineers and welders on-site by preparing remediation material using angle grinders and portable band saw

NYU Dibner IT | Specialized Design Lead

New York, NY | Nov 2018 – Apr 2020

- Collaborated with hardware and software engineers to implement a population density tracking system in an NYU 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 | Materials & Test Engineering Intern

New York, NY | 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

PROJECTS

WOOMBA | Lead Design Engineer

New York, NY | 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%

NYU SAE Aero | Design & Manufacturing Engineer

New York, NY | 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