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*

- **Dean's List**: Fall 2018, Spring 2019, Fall 2019, Spring 2020
- **Dr. Morris Young Outstanding Project Award** for "WOOMBA", Spring 2020
- **Dean's Award** for "The ParkingLot Project", Spring 2020
- **Organizations**: Othmer Hall Council, ASME, Society of Asian Scientists and Engineers

Experience

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
- Led design review meetings to validate design specifications, discuss manufacturing methods, and resolve issues
- Developed 2D drawings and Bill of Materials to streamline manufacturing timeline with machinist

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
- Applied 3D printing best practices to increase manufacturing volume of sensor cases by 50%
- Reduced installation lead time by 50% by drafting floor plans with electrical schematic in 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
- Decreased 3D printing time for Tough PLA by 10%, varying parameters such as retraction rate and extruder idle temperature
- 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%
- Reduced stress concentration on center wing box by 60% through static structural analysis in SolidWorks Simulations
- Designed removable carbon fiber boom twin-tail of primary aircraft, potentially decreasing manufacturing time by 30%
- Decreased rear landing gear weight by 70% and improved aircraft stability using ANSYS Workbench & hand calculations

Skills

Software	SolidWorks, AutoCAD, CATIA v5, KeyShot8, ANSYS Workbench
Processes	DFA/DFM, 2D Drafting/Drawing, GD&T, 3D Printing, Rapid Prototyping (Machining, Laser Cutting, Waterjet), Finite Element Analysis, Design Calculation, Iterative Design, Design Conceptualization, Strategic Planning
Languages	RStudio, MATLAB, Python, LabVIEW, HTML/CSS, JavaScipt, Bootstrap
Misc. Tech.	Mac, Windows, BASH, Git, Adobe Creative Suite, Microsoft Office, Raspberry Pi, Arduino