Hyungsup Park

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Education

University of Toronto
September 2019 – Present

BACHELORS (B.A.Sc.) IN MECHANICAL ENGINEERING | CGPA: 3.91/4.00

- Dean's List: Fall 2019 – Winter 2021
- Minor in Robotics and Mechatronics, Minor in Engineering Business
- Relevant Course: Fundamentals of Computer Programming (**Python**), Engineering Analysis, Mechanics of Solids I

Technical Skills

- Programming Language : Python, MATLAB
- Software: SolidWorks, Ansys, LabView, AutoCAD, Fusion 360, 3DS MAX, Minitab

Relevant Experience

Human Powered Vehicles Design Team
January 2021 – Present

CAD & DESIGN MEMBER

- In a team of 10+, designed and manufactured the human-powered aircraft "Kiwi" using carbon fibre.
- Using **SolidWorks**, generated CAD models of Kiwi's fuselage, and using **Ansys**, performed stress analysis at its maximum speed conditions to prevent failure of aircraft.
- Iterated with **Ansys** simulations to identify critical stress points on Kiwi and designed support structures to minimize stress.

University of Toronto Design League (UTDL)
February 2021

MASKORA

- In a team of 4, using **SolidWorks** and **AutoCAD**, designed an anti-fog mask "MASKORA", featuring a flexible silicone liner and a triangular crease in the mask to direct airflow away from user's glasses.
- Generated real-life simulations and renders of the mask using **AutoCAD Fusion 360** and **3DS MAX**.

Paper Education
February 2021 – Present

MATHEMATICS & SCIENCE TUTOR

- Managed tutoring sessions with multiple students (simultaneously) in **Python**, Mathematics, and Science.
- Conducted pedagogical assessments and provide feedback to teachers and students.
- Created an engaging learning environment and enhance student interest in learning through the "Socratic Approach".

Relevant Projects
See Portfolio

TAPA234 Crash Analysis
January 2021 – May 2021

TEAM LEADER

- Analyzed critical stress regions in the stringer used in aircraft TAPA234 through **Ansys** simulations.
- Led a team of 4 to conduct a comparative analysis of the critical stress points in the stringer through methods including photoelastic measurements, strain gauges, and mechanical testing.

MindCraft3D
September 2020 – December 2020

DESIGN MEMBER & PRIMARY CONTACT

- Collaborated with 5 teammates to design a **SolidWorks** model assembly of a professional FDM 3D printer "MindCraft3D", featuring an auto-levelling pressure sensor and a liquid cooling device.
- Researched and prototyped candidate designs of a 3D printer through **SolidWorks** simulations, and documented the full design process of MindCraft3D.

Awards & Certificates

Certified SolidWorks Associate (CSWA) — 2020 December

Certificate of Distinction, Euclid Contest — 2018, 2019