

Caden Kraft

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INTERNSHIPS

KONBINI TECHNOLOGIES

Electro-Mechanical Engineer

Singapore, SG

Aug 2020 – Apr 2021

- Developed E-payment solution for traditional coin-based laundromat machines
- Synthesized knowledge of mechanical design and electrical engineering to build a cost-effective device that still maintained toolless integration with older machines
- Evaluated the E-payment device rigorously before it was manufactured and successfully deployed to 200 machines in three different countries
- Offered part-time job concluding internship and completed numerous freelance projects for the company

MOTIONAL

Mechanical Design Engineer

Singapore, SG

Jan 2020 – May 2020

- Developed an autonomous testing vehicle capable of simulating pedestrian movement used for training autonomous vehicles
- Designed testing vehicle using SolidWorks together with Ansys Mechanical to perform finite element analysis on the custom suspension system and gearbox for the chassis to withstand the weight of a 1.5-ton autonomous car
- Produced professional renders and stress analysis charts that were presented to senior engineers and peers to implement feedback and modifications into the final design

EDUCATION

IOWA STATE UNIVERSITY

Mechanical Engineering Freshman

Ames, IA

Aug 2021 – May 2025

Relevant Courses:

- Mechanical Analysis
- Calculus 1

Clubs and Activities:

- PRISUM Solar Car Team
- MAVRIC M2I Mars Rover Team

SINGAPORE AMERICAN SCHOOL

International High School

Singapore, SG

Aug 2017 – May 2021

PROJECTS AND AWARDS

NASA INTERNATIONAL SPACE STATION EXPERIMENT

Mechanical and Electrical Design Lead

Singapore, SG

Jul 2020 – Aug 2021

- Lead a team of five people to develop a biological experiment capsule examining the development of brine shrimp in a micro gravity environment on the International Space Station
- Designed schematic and PCB using Altium Designer used in monitoring the experiment as well as managing and designing the final launch capsule enclosure

INTERNATIONAL SPACE CHALLENGE

Mechanical Design and Technical Imagery

Singapore, SG

Jul 2020 – Jan 2021

- Competed in the International Space Challenge with three peers to develop a lunar excavation rover
- Created design of the rover using SolidWorks combined with Ansys Mechanical to validate the rover's performance in lunar conditions. Applied biomimicry to form an efficient excavation design
- Collaborated in creating a technical paper summarizing the research, design specifications, and renderings
- Won the AWS Innovation Award and was a top 10 finalist out of 141 projects from 20 different countries

RELEVANT SKILLS

- | | | |
|---------------------|------------------|-------------------|
| • SolidWorks | • Creo | • CATIA |
| • Ansys Mechanical | • MATLAB | • NX |
| • Autodesk Inventor | • Luxion Keyshot | • Altium Designer |