SVENA YU

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miyesven.github.io linkedin.com/in/svenayu

Skills

- 3D CAD: Solidworks, Onshape
- Fabrication: Extensive experience with mill, lathe, waterjet cutter and other power tools.
- FEA: ANSYS
- Coding: MATLAB, Java, C
- Composite Work: Vacuum Infusion, RTM, Wet Layup
- Web Development: CSS3/HTML5/ Jquery

Technical Projects (Showcase: miyesven.github.io)

Mechanical Lead

UBC Solar **Sept 2015 - Present**

Currently leading both the Mechanical team and the Aeroshell subteam to build the second version of the car for the 2019 Formula Sun Grand Prix (FSGP) competition. Below are my contributions to the first version of the car:

- Generated CAD drawings, checked all calculations and simulations; Compiled the entire Mechanical Design Report, which was approved by competition officials
- In less than two months:
    - Designed and fabricated: Motor mount; Brake Pedal & Brake Pedal Mount; Canopy & Egress system, Wheel Axles & Mounting Points
    - Fabricated: Seat & Seat mould; Parking Brake Adaptor, Wheel Adapter, Push Rods, Steering Assembly
- Provided guidance on Solidworks, trained members on heavy machinery and CNC cutters (Waterjet cutter, Laser cutter)
- Reviewed designs by members, allocated tasks and lead weekly meetings. Also managed the majority of the welding
- Developed an aggressive schedule for integrating the bottomshell and chassis to ensure compliance to competition regulations

Was a main driving force in bringing the team to competition for the first time since the conception of the club 8 years ago.

Mechanical Lead

ENPH Robot Competition **June 2017 – Sept 2017**

For this project, we built a robot that could navigate around a track autonomously to complete tasks and score points against other teams in the competition.

- Designed and fabricated the chassis assembly. Designed three iterations of the chassis using Onshape and laser cut MDF pieces for rapid assembly.
- Designed and fabricated the powertrain assembly, which was used reliably throughout all three iterations of the chassis without any maintenance.
- Designed and fabricated a robust winching system to hoist the entire robot onto an inclined pole 10 inches taller than the robot to slide down to the start line.

Technical Experience

Material Characteristics Co-op Intern
Composites Research Network **Jan – April 2017**

- Developed a viscosity model using Raven and Kermode for industry client, to be used in predicting the gel point during the manufacturing process
- To investigate various aspects of manufacturability, worked with clients to design and implement an experimental plan of a new biofilament.
- Designed a hot press tooling which reduced sample loading time from 10 minutes to less than 30 seconds to minimize heat loss and increase experimental accuracy.
- Fabricated an L-shaped carbon fibre part using Resin-Transfer-Moulding in a hot press for non-destructive testing of defects. Used an ultrasound scanner to find the exact location of defects as a proof of concept to the client.

Education

University of British Columbia
Bachelor of Applied Science, Engineering Physics **May 2020**
Dean's List- Year 1

Volunteer Experience

Volunteer
Delta Bee Field Research **June – Aug 2016**

- Participated in field work, preparing and collecting bee samples, then prepared samples in the lab for further analysis

Webmaster
Environmental Club (UBCC350) **Nov 2015 – May 2017**

- Lead and organized campus events like educational talks and student outreach events for environmental issues. Update the website with current events and for outreach to UBC Alumni.

References available upon request
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