

Marcel Lui

MECHANICAL ENGINEERING

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SKILLS

3D CAD, CAM, Machinery,
Construction Management,
Manufacturing processes,
3D modelling, Surface Modeling,
Sheet Metal, Mould Design

TECHNOLOGIES

SOLIDWORKS, AUTOCAD,
Inventor, ANSYS

EXPERIENCE

Mechanical Engineering Co-op | Delta Elevator

SEP 2021 - DEC 2021, KITCHENER, ON

- Designed technical drawings, 3D models and drafted financial documents for construction, leading to over \$1.2 million in sales
- Delivered documentation giving critical analysis and suggestions for correcting errors with a 95% adoption of recommendations

Research & Development Co-op | SMART Lab - UWaterloo

JAN 2021 - SEP 2021, WATERLOO, ON

- Accountable for design of research devices and sourcing and indexing of lab materials
- Summarised research and analysis in an easy-to-understand and engaging manner, providing insights and recommendations.

Mechanical Engineering Co-op | Prica Construction Group

MAY 2020- AUG 2020, WATERLOO., ON

- Designed architectural drawings and documentation for construction, leading to over \$2.5 million in sales
- Built program to track machine deficiencies and developed solutions to improve, reducing deficiencies by 23%

EDUCATION

University of Waterloo | Bachelors in Mechanical Engineering

SEP 2019- PRESENT, WATERLOO, ON

- President's Scholarship, Engineering Entrance Scholarship

PROJECTS

Dynamics Subteam Member | Midnight Solar Car Rayce Team

SEPT 2019 -SEPT 2021

- Designed roof, trunk and door moulds for in SOLIDWORKS and reduced cost of material by 29%
- Performed FEA analysis on suspension steering arm, redesigning to reduce critical load by 78%

Head of Design & Manufacturing | FRC 610

JAN 2019 - JUN 2019, FIRST ROBOTICS COMPETITION

- Designed and manufactured a 150 lbs robot from scratch for competition
- Responsible for checkups and repairs in-between matches
- Regional event winner, World Championship division finalist, World championship Industrial design award