ANITA PETROVIC

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EDUCATION

UNIVERSITY OF ALBERTA **JUNE 2023**

BSc. Mechanical Engineering with Distinction *Edmonton, AB*

- 3.9/4.0 GPA

WORK EXPERIENCE

LUCID MOTORS, CHASSIS MECHANICAL DESIGN ENGINEERING INTERN **MAY 2022 – AUG 2022**

Luxury Electric Vehicle Company *Newark, CA*

- Owned the design of a bushing fixture to test components of the Lucid Air Suspension system
  - Used Catia FEA to limit fixture deflection and verified that the design could withstand a max load of 18.2 kN
  - Created and executed a static and dynamic test plan with the CTW LA-48 actuator
  - Wrote a MATLAB program to analyze test data from low-cost bushing suppliers to verify performance similarities for static and dynamic stiffness to current high-cost bushing suppliers
- Designed, prototyped, and tested string potentiometer fixtures to collect and analyze rear steering data
  - Project involved setting up sensors and DAQ. VBOX and CANalyzer were used for data logging
- Developed a concept jig model for future rear steering testing of the Lucid Gravity SUV

TESLA, STRUCTURAL DESIGN ENGINEERING INTERN **SEPT 2021 – DEC 2021**

Electric Vehicle and Clean Energy Company *Fremont, CA*

- Owned the redesign of SEMI structural roof components which achieved a 5.4% mass reduction while solving for stamping feasibility, mass manufacturing, durability, and component integration
- Independently designed and implemented new toe board features for Model S/X which reduced cost and weight by over 7% while retaining structural integrity for frontal and corner crashes
- Iterated designs for FDM 3D printed fixtures with feedback from factory technicians that addressed NVH issues and reduced application time of adhesives
- Updated GD&T for new product design changes for Model S/X

ECOCAR, MECHANICAL TEAM LEAD **SEPT 2018 – MAY 2023**

Shell Eco-marathon: Fuel Cell Student Vehicle Team at the University of Alberta *Edmonton, AB*

- Modelled the fuel cell, super capacitor, DC/DC converter, and motor system in Simulink to simulate performance
- Designed, tested, and built components of the 2020 Urban-Concept suspension system to achieve a 48% reduction in weight while fulfilling structural, maintenance, and performance requirements
- Pioneered a compact prototype suspension and steering design made to fit in a confined monocoque while simultaneously being safe, lightweight, and structurally sound
- Managed a 12-person team to execute an industrial scale, 4-month long, fiberglass and carbon composite layup operation for our car body
- Managed build cycles, scrum sprint cycles, sponsorships, and an annual budget of $25,000

MODERN NIAGARA, MECHANICAL PROJECT COORDINATOR **JAN 2021 – AUG 2021**

Internship at a Canadian mechanical and electrical contracting company *Edmonton, AB*

- Processed design change requests, drawings, operation and maintenance reports, and specifications

SKILLS & INTERESTS

SKILLS: Catia V5, Catia 3DX, 3DEXPERIENCE, MATLAB, Simulink, Python, Enovia, SOLIDWORKS Certified Professional (CSWP), ANSYS, Basic GD&T, Assembly and Component Design, Design for Manufacturing, Microsoft Office (PowerPoint, Excel, Word, SharePoint), Composite Manufacturing, Technical Report Writing

INTERESTS: Motorcycling, Outdoor Rock Climbing, Snowboarding, Hiking, Baking, Saxophone, Cello