

ADESH SANGIONE, EIT

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RELEVANT EXPERIENCE

MDA Ltd, Montreal, Canada

December 2020 – August 2021

Mechanical Design Intern, Satellite and Antenna Systems

- Spearheaded the design for 25% of a satellite project by creating an antenna assembly with 100+ parts
- Modelled and released 40+ components for an RF assembly while coordinating with 5+ engineering teams
- Engineered 30+ parts including connectors, wires, and metallic sleeves for an RF communication assembly
- Established a parametrized CAD structure (Siemens NX) for an original design that lowers update requirements by 25% across mechanical and RF teams
- Developed components for 3 ground test models that complied with 5+ verification tests
- Created an Excel macro to verify pointing accuracy of 6 antennas; macro easily extracted and processed data and was added to the standard operating procedure for verifying pointing accuracy of antennas

Autonomous Robotic Vehicle Project, Edmonton, Canada

September 2018 – September 2020

Mechanical Team Lead

- Designed 60% of an Autonomous Underwater Vehicle (SolidWorks) while coordinating a team of 15+ people
- Managed 6 projects that included redesigning infrastructure valued at 40% of the project budget
- Drafted and reviewed 80+ drawings for manufacture to fabricate 3 major assemblies valued at \$8k+
- Organized mechanical component procurement with 10+ vendors to purchase 150+ parts successfully during COVID-19 shutdowns
- Chaired 3 weekly design meetings for 15+ members and measured key performance indicators to ensure the project met specifications

Imperial Oil Limited, Calgary, Canada

September – December 2019

Upstream Kearnal Calgary Facilities Engineering Intern

- Formulated 4 production enhancement tests that justified a \$20M+ per year business case
- Performed statistical analysis using JMP for 2 improvement tests and derived key process relationships incrementing annual revenue by \$500k+
- Identified redundancies in a maintenance plan and reorganized the plan to realize annual savings of \$25k
- Audited 600+ engineering drawings, presented outcomes to management, and implemented solutions

Chemtrade Logistics, Edmonton, Canada

May – December 2018

Project Engineering Intern

- Directed 7 successful projects with a combined value of \$300k across 3 company locations
- Analyzed, proposed, and evaluated 2 improvement opportunities amounting to \$50k+ savings per year
- Instituted new equipment naming conventions and maintenance procedures for 500+ equipment
- Executed a chemical heating project that decreased transportation costs by \$30k per month

EDUCATION

University of Toronto (UofT), Canada

September 2020 – April 2022

Master of Engineering in Mechanical Engineering, Robotics Emphasis

GPA: 4.0/4.0

University of Alberta (UofA), Canada

September 2015 – April 2020

Bachelor of Science in Mechanical Engineering, Co-op Program

GPA: 3.9/4.0

SKILLS AND ADDITIONAL INFORMATION

Technical Skills: Microsoft Office, Python, MATLAB, SolidWorks, Siemens NX, Fusion 360, ANSYS CFD/FEA, Rapid Prototyping, GD&T, Design for Manufacturing and Assembly, PDM and PLM, Drafting, Keras, PyTorch, Seeq

Additional Experience:

- Assessed +10k journal articles as a research assistant for CAD creativity research (UofT, 2021)
- Developed an algorithm to detect collisions for mobile robots in a virtual environment (UofA, 2019)
- Devised a MATLAB function to quantify microstructural features of military-grade foam samples using computer vision techniques (UofA, 2018)

Certifications: Alberta Class 5 Driver's License, Engineer in Training: APEGA