# ASHISH THOMAS

MECHANICAL DESIGNER

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## ABOUT ME

Team player and leader with exceptional problem-solving and project management skills.

I am looking for opportunities to learn and contribute to design using my experience in manufacturing.

Special interests | Exploring innovative technology and environmental concerns.

## EDUCATION

B.A.Sc (Hon) Mechanical Engineering
University of Waterloo | Apr 2019
Term Dean's Honours list | CGPA: 3.62/4.0

## SKILL SUMMARY

| Proficient | Intermediate |
|---|---|
| Prototype & Test | FEA |
| SolidWorks | Matlab |
| AutoCAD | SPC |
| Agile PLM | GD&T |
| CNC Milling | Inventor |
| Root Cause Analysis | PLC |
| FDM/SLA 3D Printers | NX |
| Kaizen | Fusion 360 |
| Machining | Kanban |
| Lean Manufacturing | EPDM |

## PROJECTS

Waterloo Hybrid-Electric | Designed front and rear brackets for control arm and suspension considering DFM and DFA.
ROV Submarine | Analyzed design change points followed by redesign with team.
Mechosystem | Concept development, prototyping and fabrication of exhibit.
Capstone | Concept to functional prototype for a fall protection device.

## EXTRACURRICULAR

Sports | Intramural and Club Soccer, Volleyball, Frisbee, Badminton.
Leadership | Engineering Student Committee Representative (2014-2019) High school Student Council President.
Hip-Hop Club | Dance performer.
Beatboxer | Amateur.
Travel Enthusiast | >10 countries.

## EXPERIENCE

### Teledyne Dalsa, Waterloo | Sep-Dec 2018

Microelectronics Engineering Specialist

- Implemented a cleanroom compatible robot system for image sensor fabrication.
- Designed enclosure for system and devised project game plan for production release; led design and fabrication tasks while facilitating budgeting and project timeline.
- Programmed 4-axis robot to create dispense routines and pick-and-place operations.
- Supported with 3D profiling for flatness testing, die bonding and wire bonding.

### Apple Inc, Cupertino | Jan-Apr 2018

iPhone Enclosure - Service Procurement Intern

- Investigated recycling process concerns for NPI iPhone and iPad programs to determine root cause and propose process improvements.
- Developed and performed DOE with equipment manufacturer to verify feasibility of the chosen solution; implemented the enhanced processing solution after an FMEA analysis.
- Analyzed iPhone enclosure component supply chain across generations to identify and mitigate risks; collaborated with GSMs, SQEs, Materials and Ops teams.
- Ensured continuity of service supply through negotiation with Asia-based vendors.

### Toyota Motor Manufacturing Canada, Cambridge | May-Aug 2017

Assembly Engineering Specialist Co-op

- Designed plastic jig prototypes for ECU installation and developed drawings for line-side equipment thus minimizing contractor fabrication costs.
- Spearheaded the Corolla raw material project yielding 28% cost reduction by utilizing Toyota Business Practice to analyze root causes and improve process capability.
- Accelerated the 'Automated Guided Vehicle' project for the 2019 RAV4 major model change through contractor co-ordination for production testing and troubleshooting.
- Tackled numerous production bottlenecks in a quickly changing environment by balancing design requirements with team member concerns to improve shop KPIs.

### ShadeFX, Milton | Sep-Dec 2016

Product Engineering Co-op

- Conducted FEA and created multiple prototypes for a rain water management concept and a bolted track supporting beam concept in a span of 6 weeks.
- Fabricated a drive beam fixture to transition individual processing to six work pieces at a time thus reducing setup time from 30 minutes to around 18 minutes.
- Recouped the deadline and product cost for a $4,000 motorized canopy project.

### ORBCOMM (SkyWave), Ottawa | Jan-Apr 2016

Mechanical Engineering Co-op

- Customized electro-mechanical GPS and cellular products, ensuring DFA compatibility.
- Worked extensively with PLM software, documentation control & cross functional teams.
- Expedited design and fabrication for a $25,000 project to increase production volumes.
- Facilitated the creation of 600 cable harnesses from design to manufacturing in 5 weeks.
- Assisted with testing for a $140m trailer mount solution to reduce field installation time.

### Engineering Clinic - UW, Waterloo | May-Aug 2015

Engineering Co-op

- Engineered a tool to calibrate the build platform of the DaVinci 3D printers.
- Conducted detailed analysis of product creation and formulated testing procedure.
- Experimented with ABS and PLA plastic 3D printing materials to analyze various 'model-to-build platform' adhesion techniques; streamlined 3D print process.