

Profile

I am a results-driven Industrial Designer with a diverse background in both product and transportation design. I have collaborated with engineers, designers, and architects with experience spanning a variety of different industries. I excel in adapting to unexpected challenges and willingly take on tasks beyond the typical role of an Industrial Designer. Eager to contribute my technical expertise, I am committed to being a valuable asset in any creative professional capacity.

Professional Experience

PROJECT MANAGER / IoT Fusion Device for Transportation Monitoring / McMaster Automotive Resource Centre [MARC]

APRIL 2022 - Now / HAMILTON, ON

- Oversaw and participated in the development of a multi-sensor networked Internet of Things (IoT) device.
- Was in charge of determining Power over Ethernet (PoE) voltage conversion and current supply mapping for a working prototype.
- Coordinated a team of 3 multi-stream engineers to achieve a fully functional test mule.
- Oversaw the required pre-certification evaluation (power cycling & thermal tests) for operational stability prior to outdoor prototype deployment.
- Sourced and ordered electronic hardware to allow prototype to run multiple sensors (Camera & Radar) from a single 48V input power supply.
- Configured device to run with the limitations of legacy power and data carrier boards.
- Managed and collated the test data for internal assessment.
- Ensured all sensors would function off of provided current and voltage inputs.
- Developed in-depth NEMA TS2 certification test documentation for final product hand over with a small team of engineers and designers.
- Presented product development updates on the fusion device prototype to industry partners.
- Produced concept sketches and 3D CAD models for this fusion device.
- Created and implemented training documentation for our internal research team to foster a better understanding of the costs, limitations and constraints associated with high volume mass produced products.

INDUSTRIAL DESIGN LEAD / EDGE Devices for Machine Vision Applications / MARC

APRIL 2022 - Now / HAMILTON, ON

- Created concept pitch decks for products that use remote data and machine object detection technology for traffic management, security, safety and research applications.
- Led a Co-Op student design team in early stage product viability research and form exploration.
- Assessed product design viability with our internal Mechanical Engineering team for scale model build approval.
- Produced concept sketches and 3D CAD models for transportation-adjacent products.

Professional Skills

Project Management

Task Delegation • Multi-Stream Coordination • Communication Clarity • Group Input Encouragement • Deadline Completion • Training • Interviews • Portfolio Assessment

Research & Development

Hardware Sourcing • Prototype Construction • Functional Validation • Certification Test Implementation • Supplier Outreach • Custom Fabrication

Design Team Coordination

Form Exploration • Mentorship • Product Viability Assessment • Knowledge Transfer

Modelling Software

Rhino 3D • Solidworks • Fusion 360 • Blender • 3DS Max

Rendering Software

Keyshot • V-Ray

Editing Software

Photoshop Illustrator • Indesign • Affinity Designer Suite

Awards

Finalist HCZ Dehua Ceramics Industrial Design Competition [2018]

Education

Carleton University Bachelor of Industrial Design (BID) 2018 / Ottawa, Ontario, Canada

Monash University Automotive Clay Modelling & Transport Design • Semester of 2016 / Melbourne, Victoria, Australia

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Professional Experience (continued)

RESEARCH & DESIGN CONSULTANT / EcoCAR / MARC

APRIL 2022 - Now / HAMILTON, ON

- Created the program’s logo and branding for the 4 year international competition.
- Provided preliminary research and testing guidance for the Human Machine Interface (HMI) EcoCAR 5 team. Consultation will continue when MARC takes delivery of the Cadillac Lyriq late in 2023.
- Worked with the mechanical engineering team to develop a case design for a custom inverter.

PRODUCT DESIGNER / Galvoscaner / Precision Micro Dynamics Inc. [PMDi]

NOVEMBER 2020 - MARCH 2021 / VICTORIA, BC

- Designed the sheet metal exterior cladding of a 3D Galvoscaner for production, entering market late 2021.
- Designed and modeled the initial sheet metal exterior proposal for a “Quadscanner”, including its ceramic frame gantry.
- Worked in conjunction with engineers and communicated with prototype department to achieve a standout product.
- Participated in entire product development cycle from concept to test model.
- Developed diagrams, media and layout for company website relaunch. <https://pmdi.com>

TRANSPORT DESIGNER / Internship & Post Grad Employment / Greg C. Marshall Naval Architecture [GCMNA]

JANUARY 2016 - FEBRUARY 2022 / VICTORIA, BC

- Created Augmented Reality [AR] visualizations for architectural applications.
- Design Lead for 36 ft. [11m] electric motorhome overseeing interior and exterior styling.
- Designed “Falling Water Spa” for Dornbracht’s presentation at the German Yacht Conference, 2020.
- Created Naval Architectural Illustrations [exterior & interior].
- Designed dashboard and helm for sailing yacht, involving ergonomics and interaction analysis.
- Evaluated and inspected ships for refit projects on site.
- Designed vessels for marketing and promotion
- Assisted in R&D for environmental technology in the marine industry.

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