

Ajhivan Sivananthan

Automotive Engineer, BEng

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PROFESSIONAL EXPERIENCE

Fiat Chrysler Automobiles (Stellantis) | Studio Engineer

September 2022 – Present | Remote (Contract)

- Manages **vehicle packaging** criteria and supports feasible Conceptual Digital Data (CDD) development.
- Conducts **stress analysis** of the **crush zones** for various Stellantis vehicles, prioritizing passenger **safety** and **integrity of electrical components**. Notable projects include the Jeep Wrangler and Dodge Durango.
- Identifies methods of shortening current **vehicle overhangs** by up to 15%, resulting in improved handling, enhanced stability, and reduced production costs.
- Conducts **competitive benchmarking** in accordance with Society of Automotive Engineers Standards (SAE J1100), ensuring industry compliance and staying up to date with the latest advancements.

Siemens | Mechanical Engineering Intern

May 2020 – August 2021 | Peterborough, ON (Internship)

- Developed **parametric CAD models** and drawings for Siemens **Ultrasonic** and **Radar Level Measurement** products, playing a pivotal role in the Mechanical Research & Development (R&D) department.
- Prepared **Bills of Materials** with comprehensive **GD&T callouts** on engineering drawings, effectively outlining the necessary components for manufacturing or procurement purposes.
- Developed and validated **customizable 3D product variants** (i.e., SITRANS LR250), enabling customers to select their desired technical specifications and generate a distinctive virtual product model.
- Utilized **NX CAM** to generate **G-Code** for Computer Numerical Control (CNC) machining operations such as milling and drilling, enabling cost-effective evaluation and modification of fixtures and part prototypes.

SKILLS

NX, Teamcenter, Vis-Mockup, GD&T, Bill of Materials (BOM), Finite Element Analysis (FEA), MATLAB, MS Office, MS Project, VBA/Macros, 3D Scanning/Printing, Engineering Standards (e.g., SAE, ISO, ASME)

EDUCATION

Bachelor of Engineering – Ontario Tech University

Specialization in Automotive Engineering, Honours Degree

CLASS OF 2022 | OSHAWA, ON

DESIGN PROJECTS

SACE Fiberglass Clamper | Project Manager

September 2021 – April 2022 | Oshawa, ON

- Led a team of five engineers in the development of an **automated clamping system** for precise cutting of **glass fibers**, using Spark-Assisted Chemical Engraving (SACE) technology.
- Applied engineering practices such as Design for Manufacturing (DFM), House of Quality (HOQ), **decision matrices**, and Design Failure Modes & Effects Analysis (DFMEA) throughout the development process.

Eco-Trike | Product Designer

October 2018 – December 2018 | Oshawa, ON

- Designed an **electrical urban trike** to be incorporated by **public transit systems** for traveling within Toronto.
- Constructed a 3D CAD model including **simulations, stress analysis, and drafting** of each part.