

Lucas Chung

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SKILLS

Technologies: AutoCAD, SOLIDWORKS, Revit, Niagara Framework, KMC

Languages: Python, R, MATLAB, SQL

Tools: Tableau, Power BI, Excel, VBA, Power Point, Project, Azure, Teams

PROFESSIONAL EXPERIENCE

HVAC AUTOMATION ANALYST

September 2023 – Present

Aris Building Technologies

Toronto, ON

- Utilized **PLC programming**, **AutoCAD**, and **Revit** to provide consultation and implement control automation projects for high-rise residential HVAC Systems, improved runtime efficiencies and reduced energy costs by **30%**.
- Designed **Human Machine Interface (HMI)** with **Niagara Framework** to create graphics for **25+** clients, set up alarm services for HVAC equipment failure, improved efficiency for alarm troubleshooting by more than **35%**.
- Enabled remote access functionality for mechanical building systems, configured and established network communications using **Ethernet**, **BACnet IP**, and **RS-485 ports**, set up internet connectivity, **port forwarding**, **DDNS**, and **DMZ**.

FINAL ASSEMBLY PRODUCTION ASSOCIATE

May 2022 – September 2022

Honda Canada Inc.

Alliston, ON

- Built and manufactured **30,000+** automotive vehicles, ensuring adherence to high-quality service standards.
- Supported the quality department by detecting **MLQ/VQ** issues and conducting visual inspections/testing for finished products, achieving a **35%** reduction in undetected errors.
- Executed data-driven troubleshooting for supply chain equipment, resulting in a **25%** decrease in production issues.

JUNIOR OPERATIONS ANALYST

January 2021 – September 2021

Kuohua Trading Ltd.

Toronto, ON

- Leveraged technical expertise in supply chain database management, utilizing **MySQL** data to forecast inventory trends, analyze product flow patterns, optimize purchasing levels, and achieve a **10%** improvement in profit margin over **3** months.
- Applied **Microsoft Excel** tools, including **pivot tables**, **conditional formatting**, and **VBA macros**, to automate **20+** repetitive administrative processes, resulting in a **30%** reduction in data processing times.
- Created **Power BI** data visualizations to analyze key performance indicators for retail sales and stock levels. Reduced manual reporting time by 4 hours per week.

CHASSIS DEVELOPER

September 2018 – September 2019

McMaster Solar Car Team

Hamilton, ON

- Utilized **SOLIDWORKS** to produce detailed **GDT mechanical/electrical drawings** for brakes, batteries, motors, and frame components for chassis model research and modification, adhering to **ANSI** standards and codes.
- Conducted stress failure analysis on roll cage structures using simulation techniques (**FEA**, **FMEA** Analysis)
- Utilized Microsoft Project to manage and organize project timelines for the chassis sub-team by designating tasks, setting up core milestones, and scheduling meetings.

PROJECTS

TRAILER ACTUATION SYSTEM

- Designed a machine to automate the descent of a jet ski trailer down an incline. Reduced required user load by **40%**.
- Initiated failure mode analyses (**FMEA**) with **SOLIDWORKS**, tested beams, bearings, and contact points, performed engineering calculations for critical stress points and deflection, improved stress safety factors by **20%**.
- Using **AutoCAD/SOLIDWORKS**, created **2D/3D** part drawings with reference to ANSI standards and codes.

EDUCATION

Bachelor of Engineering and Management

Hamilton, ON - April 2023

Mechanical Engineering and Management - McMaster University