**SIVA SUBRAMANIAN SREEKANTH**
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## PROFILE

Dedicated Mechanical/Automation Engineer with 2+ years of experience in 3D CAD modelling, assembling, and automating greenhouse systems with additional experience in programming and calibrating controllers like VFD and Opto22 Controllers for process automation and data integration. I am certified in SolidWorks, Ansys, Catia, Opto22, and GD&T, with a master's in mechanical engineering from **University of Windsor**.

**Software:** Solidworks, Catia, Autodesk Inventor, Fusion 360, NX CAD, Ansys, MATLAB, MSSQL, Siebel, Node Red, MS Word, PowerPoint, Excel (VLOOKUP's, pivot tables), Outlook, Teams, JIRA.

**Technical skills:** PPAP, RCA, CAR, 8D, 5 Whys, GD&T/Blueprint, Metrology, QA, D/PFMEA, Control Plans, NCR, 5S, Continuous improvement.

**Certification:**

1. **Opto22 controller**: Setup, programming and deployment
2. **CAD Level 3 certification:** SolidWorks, Catia, Ansys and GD&T.

## WORK EXPERIENCE

**Nebula Group of Companies**
**June 2023 – Present**

❖ **Mechanical/Automation Engineer** **September 2025 – Present**
Envirotech AG Systems LTD., Winnipeg, MB, Canada

- Developed mechanical 3D CAD models with proper geometric dimensions (GD&T), involved through the full life cycle of product (PDLC), and conducted structural and fluid flow analysis to ensure durability in greenhouse and livestock environments.
- Collaborated with cross-functional teams, vendors, and colony members by providing 3D CAD drawings to support manufacturing and ensure engineering principles and standards were met.
- Integrated my skillset and knowledge of different environmental conditions and material usage during a transition from greenhouse automation to the livestock industry as part of a company integration.
- Gained experience in new technologies such as Electronic Sow Feeding (ESF) stations and their specific applications within the livestock industry.
- Worked on structural layouts and planning for both greenhouse and sow barn facilities.
- Learned the basic functionality of new PLCs, including Phoenix Contact (PLCnext) and Siemens S7-1500 series, and expanded automation capabilities by integrating and programming them into existing systems.

❖ **Mechanical/Automation Engineer** **June 2023 – August 2025**
Climate Control Systems, Leamington, ON, Canada

- Involved in complete Product Development Life Cycle (PDLC), managing critical phases such as Designing, analysis, drafting, modifications and documentation.
- Proficient in writing and analyzing system requirements, documents and use cases, as well as preparing

detailed analysis and summary reports, adhering to control standards.

- Designed and analyzed different machine frames, Control systems, process piping and assembled mechanical systems for Greenhouse automation using CAD software like Autodesk Inventor, Ansys & Fusion 360).
- Prepared detailed engineering drawings with Geometric Dimensions and Tolerances (GD&T) marking to ensure proper and accurate manufacturing process.
- Experienced in selecting material grades for frame manufacturing, including the use of 304 and 316 food grade stainless steel for greenhouse automation systems to ensure safety and health standards.
- Analyzed various welding processes and selected the most suitable method for frame manufacturing, ensuring strong joints on hollow stainless-steel tubes while not compromising the aesthetics of the frame.
- Performed structural analysis and simple fluid analysis on water systems using Fusion 360 and ANSYS software to understand stress and strain distribution in the system.
- Conducted quality analysis on developed machines, which include pressure testing, leak detection, and software programming, documenting results to support quality audits.
- Worked on critical machine components, which include various calculations for mechanical pump selection based on flow rates and distances, high precision injectors that work on dosing pumps, pressure transmitters, and various sensors like temperature and humidity sensor, anemometer for every greenhouse function.
- Generated Bill of Materials (BOM) containing Quantities and cost estimates directly from the CAD software (Autodesk Inventor and Fusion360) and automated the purchase ordering system by integrating it with the company server and inventory database.
- Implemented program controls using Opto22 controllers, ensuring read, write, and use sensor values for process automation (control electric valves output).
- Calibrated high sensitivity sensors (pH, EC, pressure) for accurate readings, triggers and implemented Node-RED for data logging into SQL databases (MSSQL).

**Wipro - Automation Developer (Siebel CRM)** **May 2019 – Aug 2021**
Wipro Technologies, Chennai, Tamil Nadu, India

- Worked in Siebel CRM to customize and extend CRM functionalities according to business needs.
- Worked on triggering inbound and outbound web service integrations as a part Siebel EAI (Enterprise Application Integration), facilitating connectivity with external systems via Web Services, SOAP and REST APIs.
- Developed complex SQL and PL/SQL scripts for data extract, manipulate, and analyze required for operational needs.
- Performed unit testing, performance tuning, and debugging of Siebel applications to ensure low defect rates.

## EDUCATION

**Master of Engineering - Mechanical Engineering** **Jan 2022 – Apr 2023**
University of Windsor, Ontario, Canada

- Related coursework: MATLAB, NX CAD, Materials and Manufacturing, Hybrid Powertrains, FEA (LS Dyna).

**Bachelor of Engineering – Mechanical Engineering** **Aug 2015 – Apr 2019**
Sri Sairam Engineering College, Anna University, Chennai, India

- Related course work: Total Quality Management; Strength of Materials; CAD; Design of Machine elements, Non-Destructive Testing, Thermodynamics.

## RELEVANT ACADEMIC PROJECTS

**Forklift Design and Structural Analysis (NX CAD)** Aug 2022 - Dec 2022

- Designed and analyzed the forklift body structure using NX CAD software and prepared a report and presentation showcasing the structural failures.

**Structural analysis of different Components (LS- Dyna)** Aug 2022 - Dec 2022

- Analyzed stress, strain and load distribution of various components like helical spring, solid and hollow components with various mesh size using LS-Dyna Software.

**Smart Parking System coding (MATLAB)** Apr 2022 - Aug 2022

- Developed MATLAB code for the “Smart parking System” project.
- Created a working prototype that works based on project requirements

**SAE Supra (SolidWorks & Ansys)** Jun 2018 - Apr 2019

- Designed, fabricated, and tested a prototype of Racing vehicle for the SAE Supra competition, meeting all technical and safety requirements.

**Skills Developed** - **Vehicle design and fabrication**, **technical analysis, Brake Assembly, Electrical Wiring** and problem-solving, Project management and collaboration, Leadership and teamwork, Communication and presentation skills.

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**REFERENCES AVAILABLE UPON REQUEST | AVAILABLE TO START IMMEDIATELY |**

**VALID CANADAIAN VISA | VALID DRIVERS LICENSE | VALID US B1/B2 VISA**