JASRAJDEEP JASSAR

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PROFESSIONAL PROFILE

- **Robotics and Automation Specialist** with a robust technical foundation in CAD-assisted design, 3D modeling (SolidWorks, Fusion 360), and hands-on experience in programming and system integration.
- **Skilled in mechatronic systems assembly and programming**, ensuring robust system performance and incorporating advanced instrumentation. Direct experience with projects like autonomous guided vehicles
- **Adept at troubleshooting and creating diagrams** for electrical, mechanical, pneumatic, and hydraulic systems, providing a strong foundation for maintenance and operational excellence in R&D environments.
- **Demonstrated leadership and communication** skills through coordination with diverse teams and leading projects, notably during my tenure at the International Centre at SAIT, Calgary.

EXPERIENCE

TransCanada Turbines (TCT), Calgary, Canada — May 2024 - Present
Robot Programmer

- **Focused on programming robots** for aerospace applications and applying engineering processes on turbine engines, particularly the LM6000 by GE, used by the navies of three nations.
- **Collaborated with multidisciplinary teams** to optimize robotic operations, contributing to the successful application of advanced automation in turbine maintenance and repair, enhancing both safety and operational performance.

E-Pro Bots — June 2024 - Present
Service Robot Consultant & Technician

- **Volunteering to develop an app** for autonomous mobile robots in the service and food industry.
- **Reverse engineering** previous app versions to understand the architecture used by food delivery robots.

Centre for Innovation and Research in Unmanned Systems (CIRUS), Calgary, Canada — Aug 2023 – Dec 2023
Robotics Intern

- **Contribute to the design of a robotic arm** for a rover under the guidance of Shahab Moeini, gaining valuable experience in applied research and system troubleshooting.
- Played a critical role in the **prototyping and testing phases,** ensuring the robotic arm met precise functional requirements.

EDUCATION

Southern Alberta Institute of Technology (SAIT), Calgary, Canada – Jan 2023 - May 2024
Mechanical Engineering Technology - Design and Automation – Diploma

Key courses

- **Professional CAD Design (ENGD-250):** Advanced proficiency in SolidWorks, essential for 3D modeling and the design of mechanical parts in innovative projects, such as building an AGV for a capstone project and a working Stirling engine.
- **Robotics and Automation (EMSI-320):** Extensive training in programming and operating industrial robots, applicable to the automation aspects of research projects.

PROFESSIONAL DEVELOPMENT AND LEADERSHIP

- **Active Student Member,** ASET, SAE international and ISA.
- **Member, Protospace Makerspace,** Calgary, Canada.
- **Former Robotics/Mechatronics executive at M.E.T.A** (Mechanical Engineering Technology Association Student Club).
- **Community Volunteer,** Calgary Health Foundation, CCIS, Hospice Calgary and International Centre, SAIT.

INTEREST

- **Advanced Manufacturing Techniques:** Actively researching and learning about metal 3D printing technologies, focusing on innovative manufacturing processes.
- **Programming and Prototyping:** Skilled in Python and Linux, with significant project experience in developing a SLAM protocol-based program for an AGV, managed using ROS2 libraries.