

Contact

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Top Skills

Large Language Models (LLM)
Artificial Intelligence (AI)
Automated Data Handling and IoT

Languages

French (Native or Bilingual)
English (Native or Bilingual)

Certifications

Machine Learning in Production
Google IT Automation with Python Specialization
Microsoft Certified: Azure Data Fundamentals
Generative AI with Large Language Models

Jeremie Notebaert

Junior Mechanical Designer at CPI Automation Ltd.
Greater Toronto Area, Canada

Summary

I'm a mechanical designer moving toward electrical engineering, focused on one thing: designing things that get built. I'm drawn to problems where the deliverable is a physical product - a frame, a part, a machine, a working system - not just a document or a dashboard. At CPI Automation I design and build custom automation hardware in Autodesk Inventor: 80/20 aluminum extrusion assemblies from profile selection through to the finished build, and functional 3D-printed parts I take from CAD model to material selection to print. Before that, I built the systems behind operations - automating steel material verification (now in production, estimated by management to save ~\$500,000 CAD annually) and standing up real-time IoT monitoring for plant machinery (MQTT → InfluxDB → Grafana) with threshold alerting for preventive maintenance. I came up through a physics and applied-math foundation at Waterloo - electricity & magnetism, differential equations, applied linear algebra - and I'm now completing a BSEE at the University of North Dakota to formalize the electrical side and work toward my P.Eng. Software and data are tools I'm glad to reach for, but the product is the point. My goal is to keep building real-world systems - ideally on the electrical and hardware side.

Experience

CPI Automation Ltd.

7 months

Junior Mechanical Designer

September 2026 - Present (1 month)

Mississauga, ON

Mechanical design engineer supporting the design and build of industrial automation systems, working primarily in Autodesk Inventor 2026.

- Design and build custom 80/20 aluminum extrusion solutions end-to-end — selecting profiles, brackets, and fasteners, modeling frames and assemblies in Inventor, and producing the physical builds.
- Design functional 3D-printed parts from scratch in Inventor, owning the full cycle: modeling, material selection, and printing.
- Generate and manage bills of materials (BOMs) directly in Inventor for parts and assemblies.
- Use Tribute (inventory/ERP) for project quoting and purchase order management.

Shipper/Receiver & Warehouse Operations

March 2026 - September 2026 (7 months)

Mississauga, ON

Owned shipping, receiving, and inventory operations, with a focus on process optimization and knowledge transfer. Recognized internally for setting a new standard in the role.

- Process Improvement: Reorganized and optimized warehouse operations, restructuring inventory layout and workflows to improve accuracy and retrieval speed.
- Training & Knowledge Transfer: Trained my replacement over a two-week hands-on on-boarding with ongoing support, creating a shop blueprint (inventory map) and written process documentation so daily operations could be run independently.
- Design Support: Created a 3D CAD model from a customer's original drawing, which was used to produce the 2D shop drawings for in-house fabrication.
- Operations: Managed inbound receiving, order fulfillment, and mechanical assembly/kitting of hydraulic and pneumatic components; operated counterbalance forklift for material handling.

DHL Express

Bilingual Customer-Facing IT Specialist

October 2025 - January 2026 (4 months)

Brampton, ON

Technical, customer-facing IT support for business clients integrating with DHL's shipping platforms, working bilingually in English and French.

- API Integration: Wrote against and tested DHL's shipping API in Postman to diagnose and resolve customer integration issues.

- Data Mapping & Validation: Mapped and validated customer data fields to internal schemas, both directly and by guiding customers through their own integrations.

- Cross-Team Collaboration: Worked with IT and software engineering teams to troubleshoot routing and data integrity issues and escalate defects with diagnostic detail.

Samuel, Son & Co.

Software Engineer

May 2024 - September 2024 (5 months)

Oakville, ON

Built automation, monitoring, and integration systems for warehouse and production operations. Stack: Python, C#, SQL, Unix, Docker.

- Automated Material Verification: Built a system using GPT-4o vision to compare received steel mill test certificates against purchase orders, flagging discrepancies before materials entered inventory. Now in production; estimated by management to save ~\$500,000 CAD annually through reduced material waste and rework.

- Industrial Equipment Monitoring (IoT): Deployed a real-time monitoring stack for warehouse machinery using Docker/Portainer — Telegraf pulling sensor data from the plant MQTT broker into InfluxDB, visualized in Grafana. Built customizable dashboards for pressure, temperature, and operational metrics, with threshold alerts to support preventive maintenance and reduce unplanned downtime.

- E-Commerce Integration: Connected the company's Shopify storefront to backend systems using webhooks and an Azure Functions scheduler to automate order data flow, eliminating manual entry.

- Systems Integration: Developed an integration layer (including DLL work) linking legacy production management systems to modern tooling, improving production order tracking and visibility.

Costco Wholesale

Team Lead, Operations

November 2021 - May 2023 (1 year 7 months)

Mississauga, ON

- Supervised a team of 3–5 across all shifts in a high-volume perishable-goods operation, coordinating receiving, replenishment, and production.
- Redesigned cooler storage layout to improve picking speed and accessibility in a facility operating beyond capacity.
- Managed FIFO inventory rotation, receiving/dock operations, and safety/compliance standards; operated forklift and pump truck.

Education

University of North Dakota

Bachelor of Science, Electrical Engineering · (August 2026 - August 2029)

University of Waterloo

Bachelor of Mathematics - BMath, Mathematics · (September 2021 - August 2025)