Daniel Avella Ordonez

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SUMMARY

Final-year Computer Engineering student (Software Engineering Option, Co-op) with 16 months at Ontario's grid operator (IESO) building Python analytics and automation for real-time telemetry. NPPE passed. Focused on AI and machine learning.

EDUCATION

Toronto Metropolitan University, Toronto, ON — Expected Apr 2027
Bachelor of Engineering, *Computer Engineering*, *Software Engineering Option (Co-op)*
GPA: 3.15 | Awards: Bouck & Hague Memorial Award (2025); Dean's List (Winter 2023, Winter 2025)
Relevant coursework: Data Structures & Algorithms, Operating Systems, Computer Architecture, Embedded Systems, Compilers

EXPERIENCE

Independent Electricity System Operator (IESO), Mississauga, ON — May 2025 – Aug 2026
Power System Analyst (Co-op), *System Integration*, *Markets and Reliability*

- Built a Python oscillation analysis toolkit that applies Welch PSD to PMU telemetry, reports the dominant oscillation in four frequency bands, and supports alarm-threshold work for the Wide Area Monitoring System; improved diagnostic speed by ~30%.
- Developed a rate-of-change-of-frequency (RoCoF) framework that processes large PMU datasets, flags threshold events and reports 99% confidence intervals, validated against the vendor's monitoring platform.
- Automated a PMU data quality framework that checks 24 hours of telemetry for missing samples, timestamp errors, outliers and frozen signals, reducing validation errors by ~20%.
- Built Python and VBA automation for QA and reporting workflows, cutting manual processing time by ~25%.
- Led a customer feedback system for the Connection Roadmap: built the applicant dataset, automated survey invitations and tracking, and presented findings to System Integration management.

Fila's General Construction, Toronto, ON — Sep 2023 – May 2025
Web Architect and Technology Consultant

- Designed and launched the company website with local SEO, analytics and CRM lead capture, increasing inbound leads by ~30%.
- Managed targeted Google Ads campaigns, reducing cost per lead by ~20%.

Joseph Brant Hospital, Burlington, ON — 2018 – 2020
Hospital Volunteer, *Front Desk and Dispatch*

- Answered and routed calls to nursing stations and patient rooms; supported patients and families with empathy and patience.

Customer Service and Sales Associate, various retailers, Burlington, ON — Jun 2018 – Sep 2023

PROJECTS

Demos, video and reports: danielavellaordonez.com/#portfolio

TrustLens: Multimodal Phishing Detection (Capstone, in progress) | Python, computer vision, NLP | details — 2026 – 2027

- Project manager for a team building a browser extension that detects phishing pages by fusing screenshot, text, HTML and URL analysis into an explainable risk score.

Engineering Signal Analytics Dashboard | Python, Streamlit, Plotly | live app — Feb – Mar 2026

- Built and deployed a public app for voltage and frequency analysis with anomaly detection ($\mu \pm k\sigma$), processing 500+ signals per session and reducing manual analysis effort by ~40%.

Avella Media Center (COE718) | Embedded C, Keil, LPC1768 Cortex-M3 | demo video — Fall 2026

- Built a joystick-driven media center on bare hardware: photo gallery, USB audio player and a two-player game.

RISC CPU in VHDL (COE608) | VHDL, Quartus II | report — Winter 2025

- Designed a processor (datapath, FSM control unit, memory, reset) and verified it instruction by instruction in simulation.

SKILLS AND CERTIFICATIONS

Programming: Python, C/C++, Java, SQL, JavaScript, VHDL, VBA
AI and data: Machine learning, computer vision, generative AI, prompt engineering, Pandas, NumPy, SciPy, Plotly, Streamlit, FFT/PSD
Cloud and systems: AWS, Docker, Kubernetes, Git, Linux, CI/CD (Azure DevOps), REST APIs, PMU, SCADA, PI System, FPGA
Certifications: IBM AI Engineering; DeepLearning.AI Generative AI for Software Development; Google Advanced Data Analytics, Cybersecurity and Project Management; AWS Cloud Solutions Architect; Meta Database Engineer; Microsoft Business Analyst
Languages and interests: English (native), Spanish (fluent); MMA and Brazilian jiu-jitsu (gold, Ontario Open no-gi 2026); chess; hiking