

Nathaniel Mann

604 916 0994 – nate@nathanielmann.ca – nathanielmann.ca

Third-year Electrical Engineering student and Queen's varsity athlete with hands-on experience in embedded systems, Python automation, data visualization, CAD and electronics prototyping. Experience developing integrated hardware/software systems and leading multidisciplinary technical projects.

EDUCATION

Bachelor of Applied Science, Queen's University, Kingston, ON 2024-present
Electrical and Computer Engineering – Innovation (ECE-I) specialty
• Coursework: Computer Networks, Computer Programming 2, ECE Design & Practice, Data Science

WORK EXPERIENCE

Business Analyst - Regional Animal Protection Society (RAPS) Jun-Sept 2026

- Automated client-data extraction and reporting using Python and Selenium WebDriver, replacing manual data-export processes and enabling analysis of incoming-client information
- Developed an interactive Power BI visual dashboard for monthly board reporting using Python and DAX, including geospatial client heatmaps and custom Matplotlib gauge charts
- Led a 5+ person team in the design and development of an online auction platform for Mama Karen's Korner, from initial proposal through Shopify implementation and project handoff.
- Used Python and Excel to calculate optimal future monthly specials for the RAPS Animal Hospital
- 3D-Printed wheelchairs for kittens with cerebellar hypoplasia (wobbly kittens)

Labourer - Coastline Projects Ltd. May-Sept 2025

- Supported residential construction projects in a hands-on team environment

Project Support - ECOMetrix Environmental Consulting Inc. 2024

- Supported the development of a literature-based assessment of climate change impacts to and benefits from Marine Protected Areas in Canada

PROJECTS

Lettuce Investment Tool 2026

- Built and deployed Lettuce, a full-stack stock research web app (Node.js, vanilla JS), with no npm dependencies. It charts share price against earnings and calculates fair value, P/E, ROIC, WACC and a two-stage DCF from raw SEC EDGAR filings, Cboe price data and FRED rates.
- Wrote a data pipeline that turns raw XBRL filings into clean per-share history. It detects stock splits automatically, derives Q4 and trailing-twelve-month figures, and caches and rate-limits requests on the server. Automated tests run on every deploy.

1995 Toyota 4Runner 2026

- Diagnosed power window failures using a battery and multimeter to isolate a wiring fault and tracing another failure to a rusted arm, which was replaced per manufacturer service specifications
- Diagnosed and replaced the rear brake lines, restoring full braking performance.

Battery Management System for QRET Avionics 2025

- Assembled, and voltage-tested battery pack layouts for QRET avionics and researched BMS components and circuit board datasheets.

TECHNICAL SKILLS

- Data Analysis:** NumPy, pandas, matplotlib, scikit-learn, Excel, Power BI, Power Query
- Engineering & Design:** SolidWorks, Quartus 2, KiCad 8 & 9, Arduino, ESP32, soldering, 3D-Printing, Codex, Claude Code, git/GitHub, APIs
- Languages:** C, C#, C++, Java, JavaScript, VHDL, Assembly, Python, DAX, HTML/CSS, SQL

CAMPUS ACTIVITIES

Queen's Rocket Engineering Team – Avionics Sub-team general member 2025-Present
Queen's Varsity Men's Ultimate Team 2024-Present
Queen's University Motionball Athlete Ambassador 2025-Present