

NICOLAS DEKLEN CROCKER

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in NDCrocker

NDCrocker

EDUCATION

Bachelor of Science in Electrical Engineering

[University of Alberta](#)

Sept. 2018 - Nov. 2022

Edmonton, AB

• **Relevant Coursework:**

Digital Logic Design

Control Systems

Digital Electronics

Embedded System Design

Integrated Circuit Design

Intelligent Systems Engineering

WORK EXPERIENCE

Embedded System Developer

[Jones Microwave Inc.](#)

Aug 2022 - Present

Edmonton, AB

- Review dozens of potential laser drivers for viability in custom PCB design
- Research further background theory in the physical attributes of VCSELs and laser diodes for their successful implementation in a PCB.
- **Technologies:** Qucs Studio, Laser Diodes, VCSELs

Project Assistant (Summer Internship)

[Government of the Northwest Territories](#)

Apr. 2019 - Aug. 2021

Inuvik, NT

- Automate preexisting VBA tools to shorten information sharing process between Project Officers and Regional Project Manager by multiple days across entire team.
- Manage and maintain project budget and status information for over 100 projects in the Beaufort Delta, and Sahtu regions
- Complete audits of multi-year projects to assist project officers in settling disputes with contractors
- **Technologies:** Access, Excel, SQL, VBA

PROJECTS

Classroom IoT Carbon Dioxide Sensor (Capstone)

[University of Alberta](#)

Sept. 2021 - Apr. 2022

Edmonton, AB

- Design a power management circuit using Lithium-Polymer and NiMH battery chemistries for a portable device
- Develop a smartphone application to interface with sensor to provide a more fluid and controlled user interface
- Coordinate regular meetings between the group, the client and technical advisors throughout project stages
- **Technologies:** BLE, Dart, Flutter, KiCAD

SKILLS

Languages

C

C++

Dart

LaTeX

MATLAB

Python

SQL

VBA

VHDL

Tools

Cadence Virtuoso

Git

KiCAD

Logic Analyzers

LTSpice

Qucs Studio

EXTRACURRICULAR

Member

[University of Alberta Powerlifting Association](#)

Feb. 2022 - Present

Edmonton, AB

- Grow the club by marketing club perks and activities to entice individuals to join
- Plan and schedule social events with members of the club

Member - Electrical Team

[AlbertaLoop](#)

June 2022 - Present

Edmonton, AB

- Improve precision of hyperloop pod's position estimator by reducing errors in the Kalman filter and coordinate system conversion modules
- **Technologies:** C++, Python

Member

[Father Patrick Mercredi RSports Team](#)

Sept. 2015 - May 2016

Fort McMurray, AB

- Built and enhanced robots for multiple high school robotics competitions (VEX, FRC)
- Learned how to follow basic design processes to develop effective robots for the required tasks
- Competed in the FRC Stronghold World Championships in St. Louis
- **Technologies:** C++, easyC