# Nicolas Deklen Crocker

Electrical Engineeer (E.I.T)

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### Jones Microwave Inc.

Aug. 2022 - Present

Edmonton, AB

Embedded System Developer

> Develop a comprehensive market survey of several laser diode drivers for viability in custom PCB design

- > Compare physical attributes of VCSELs and laser diodes for most appropriate device selection in project
- > Contact component suppliers and producers for further inquiries into their products
- > Technologies: Qucs Studio, Laser Diodes, LED Drivers, VCSELs

## **University of Alberta**

Jun. 2022 - Present

Edmonton, AB

Lifeguard

> Provide support in the training, mentoring and organization of lifeguards

- > Oversee aquatics facility in the absence of full-time and management staff
- > Certifications: Standard First Aid CPR C & AED, National Lifeguard Pool

### **Government of the Northwest Territories**

Apr. 2019 - Aug. 2021

Project Assistant (Summer Internship)

Inuvik, NT

- > Build and upgrade VBA tools in Excel and Access for Project Manager to receive the latest project information from all project officers across our office's jurisdiction
- > Maintain project budget and status data for over 100 projects in the Beaufort and Sahtu regions
- > Complete audits of multi-year and multi-contractor projects to assist in settling contract disputes
- > Compile project drawing database for 1100+ engineering drawings and schematics from the region
- > **Technologies:** Microsoft Access, Microsoft Excel, SQL, Visual Basic for Applications (VBA)

### **Government of the Northwest Territories**

May 2020 - Aug. 2020

COVID-19 Public Health Officer

Inuvik, NT

- > Reduce the spread of COVID-19 by processing individuals arriving from multiple flights into the community
- > Communicate required information to ensure correct isolation procedures and protocols are followed

# **Education**

University of Alberta

### **Bachelor of Science in Electrical Engineering**

Sep. 2018 - Nov. 2022

Edmonton, AB

> Relevant Coursework: Control Systems, Data Communication Networks, Digital Logic Design, Digital Electronics, Embedded System Design, Integrated Circuit Design, Intelligent Systems Engineering, Power Engineering

# **♥**<sup>a</sup> Skills

**Programming Languages** C, C++, Dart, LaTeX, MATLAB, Python, SQL, VBA, VHDL

**Engineering Design Tools** Cadence Virtuoso, KiCAD, Logic Analyzers, LTSpice, Qucs Studio

Organizational Software Git, Google Drive Suite, MS Office Suite (Word, Excel, Powerpoint, Access)



### **Classroom IoT Carbon Dioxide Sensor (Capstone)**

University of Alberta

Sep. 2021 – Apr. 2022 Edmonton, AB

- > Design a battery recharging circuit using Lithium-Polymer and NiMH battery chemistries for portable device
- > Develop a smartphone application to interface with sensor to provide a more fluid and controlled UI
- > Frame a Bluetooth GATT Profile to exchange credential data between smartphone application and device
- > Coordinate regular meetings between the group, the client, and technical advisors through all project stages
- > **Technologies:** Bluetooth Low Energy (BLE), C++, Dart, Flutter, KiCAD, SoC



# **University of Alberta Powerlifting Club**

Feb. 2022 - Present

- > Plan and schedule social events with other members of the club
- > Increase the community size by marketing club perks and activities to entice individuals to join

AlbertaLoop Jun. 2022 – Present

- > Create Python script to parse data from navigation module test to diagnose issues within the GPS module's equirectangular projection process
- > Technologies: Python

# **∞** Interests

#### **Professional**

- > Embedded System Design: Power Management, Processor, Application-Specific Circuits
- > Firmware Development: High-level Firmware, Subsystem
- > Integrated Circuit Design: Architectural Design, Logic/Circuit Design, Design Verification
- > Project Management: Scope Management, Schedule Management, Cost Management, Risk Management

#### **Personal**

- > Curling: Curled competitively for 10 years; multiple time NWT representative between Nationals and CWGs
- > Learning Languages: DELF-certified fluency in French; interested in learning German and Cantonese
- > Powerlifting: Avid powerlifting competitor; currently gearing up for Provincials in June
- > Running: High school X-country and track & field athlete

# **References**

Available Upon Request