# Nicolas Deklen Crocker

Electrical Engineeer (E.I.T)

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# Experience

**Jones Microwave Inc.** 

Aug. 2022 - Present

Embedded System Developer

Edmonton, AB

- > Develop a comprehensive market survey of several laser diode drivers for viability in custom PCB design
- > Research further background theory in the physical attributes of VCSELs and laser diodes for their successful implementation for application specific PCB
- > **Technologies:** Qucs Studio, Laser Diodes, VCSELs, Laser Drivers

**University of Alberta** 

Jan. 2023 - Present

Edmonton, AB

Head Lifeguard

- > Lead other lifeguards to provide a safe and comfortable environment for all patrons
- > Respond to and support fellow lifeguards during medical emergencies and patron incidents
- > 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

Inuvik, NT

Project Assistant (Summer Internship)

- > 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
- > Manage and maintain project budget and status information for over 100 ongoing and upcoming projects in the Beaufort and Sahtu regions
- > Complete audits of multi-year and multi-contractor projects to assist project officers in settling disputes with contractors
- > **Technologies:** Microsoft Access, Microsoft Excel, SQL, Visual Basic for Application (VBA)

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

May 2020 - Aug. 2020

COVID-19 Public Health Officer

Inuvik, NT

- > Protect the community of Inuvik from exposure to COVID-19 by processing individuals arriving from multiple different flights into the community
- > Direct and communicate required information to visitors ensuring correct isolation procedures and protocols are being followed

Town of Inuvik Jul. 2018 - Aug. 2018 Inuvik, NT

Day Camp Senior Counsellor

> Conduct and schedule junior counsellors to provide a safe, engaging and fun day camp for kids

- > Use Microsoft Office programs to provide in-depth reports about budget and attendance for the Inuvik Summer Day Camp
- > **Technologies:** Microsoft Word, Microsoft Excel

### **East Three Secondary School**

Mar. 2018 - Jun. 2018 Support Assistant Inuvik, NT

> Produce a safe and productive work environment for all students with the help of other Support Assistants, staff and Teachers

- > Support teachers and other staff members with any issues or extra tasks that need to be completed to prepare for the following class
- > Provide additional lessons and tutoring for students in academic stream math and science courses (Chemistry 20 & 30, Math 10-1, Math 20-1 & 30-1, Physics 20 & 30)

## **Education**

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

Sep. 2018 - Nov. 2022 Edmonton, AB

University of Alberta

- > MacEwan First-Year Engineering Transfer Program 2018/19
- > Relevant Coursework: Digital Logic Design, Control Systems, Digital Electronics, Embedded System Design, Integrated Circuit Design, Intelligent Systems Engineering, Power Engineering

## Projects

## Classroom IoT Carbon Dioxide Sensor (Capstone)

Sep. 2021 – Apr. 2022

University of Alberta

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 user interface
- > Coordinate regular meetings between the group, the client, and technical advisors through all project stages
- > **Technologies:** BlueTooth Low Energy (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

#### **∞** Interests

Professional Integrated Circuit Design, Embedded System Design, PCB Design, Project Management, Firmware Development

**Personal** Powerlifting, Music, Linguistics, Running, Photography, Reading, Curling, PC Building, Gaming

## References

Available Upon Request