

Nicolas Deklen Crocker

Electrical Engineer (E.I.T)

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Experience

Jones Microwave Inc.

Embedded System Developer

Aug. 2022 – Present

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

Lifeguard

Jun. 2022 – Present

Edmonton, AB

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

Project Assistant (Summer Internship)

Apr. 2019 – Aug. 2021

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
- > 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 Applications (VBA)

Government of the Northwest Territories

COVID-19 Public Health Officer

May 2020 – Aug. 2020

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

Education

Bachelor of Science in Electrical Engineering

University of Alberta

Sep. 2018 – Nov. 2022

Edmonton, AB

- > 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

Extracurriculars

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:** C++, Python

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