Keenan Nicholson

Software Developer & GIS Analyst

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Education

Bachelor of Arts — *Memorial University of Newfoundland*
Major in Computer Science, minor in Geography — *Jan 2021 – Dec 2023*

Bachelor of Science — *Memorial University of Newfoundland*
Major in Computational Mathematics — *Sep 2016 – Apr 2020*

Work Experience (selected)

C-CORE — *Apr 2023 – Sep 2023*
Image Analyst — *St. John's, NL*

- Data driven full-stack development of web applications
  - Frontend: React.js, HTML, CSS, Material UI (MUI), and Chakra UI.
  - Backend: Python, Pandas, SpatioTemporal Asset Catalogs (STAC)
- Analyzing satellite imagery using technologies such as ArcGIS Pro, Python, Pandas, and Matplotlib to monitor iceberg and river ice activity.

Memorial University of Newfoundland — *Sep 2017 – May 2020*
Teaching Assistant — *Corner Brook, NL*

- Assisting with the instruction of first year math labs
- invigilating quizzes
- grading assignments and quizzes for first and second year math courses.

Memorial University of Newfoundland — *Jan 2019 – May 2019*
Research Assistant — *Corner Brook, NL*

- I received a full-time work grant from NSERC. During that time, I researched the properties of algebraic groups as codes and developed an algorithm to decode twisted permutation codes. These codes demonstrate improved reliability and reduced minimum distance compared to other codes in specific scenarios.

Projects

Canadian Emissions Analysis and Prediction — *Nov 2022*
Coursework Project

I analyze vehicle fuel efficiency and CO2 emissions using machine learning, studying the impact of factors like transmission type, fuel type, and engine size. Through supervised and unsupervised learning techniques, along with scaling methods, I build a predictive model that estimates a vehicle's efficiency and emissions based on its attributes.

ISS Tracker Twitter Bot — *May 2022*
Personal Project

This application implements Cheerio and node-fetch libraries to scrape real-time International Space Station location data from NASA's website. It then formats and utilizes the Twit library to tweet the ISS visibility details for specific cities in Newfoundland and Labrador.

Technical skills

Programming Languages	JavaScript / TypeScript, Python, HTML, CSS
Frameworks	React.js, Chakra UI, Material UI
Operating Systems	Windows, MAC, Linux