ALAN J. YU

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Education

M.Sc, Earth Sciences Expected 2024
University of Toronto, Toronto, Ontario
Supervisor: Phil Heron

B.Sc, Environmental Physics 2018–2023
University of Toronto, Toronto, Ontario
Grade: High Distinction; Co-op program

Experience

Geodynamic Researcher Toronto, ON
Phil Heron, University of Toronto May 2022 – May 2023

- Investigated potential tectonic mechanisms involved in rifting (a continent separation process) in the North Atlantic via numerical modelling. Computations were performed in the Niagara supercomputer, and models were visualized using ParaView.
- Proposed critical conditions and mechanical constraints for the rifting process and fragmentation of terranes (i.e., left-over pieces after rifting).
- Co-author: *Stranding continental crustal fragments during continent breakup: Mantle suture reactivation in the Nain Province of Eastern Canada.* Geology.
- Presented the results at the 2023 Canadian Geophysical Union Annual Meeting.

Geophysicist Toronto, ON
Abitibi Geophysics Jan 2022 – April 2022

- Mapped and processed preliminary geophysical surveying data (e.g., magnetic, induced polarization, and gravity) in Geosoft Montaj.
- Developed standard templates and control scripts to streamline and streamline the process of map production.

Sedimentary Researcher Toronto, ON
Nick Eyles, University of Toronto May 2021 – Dec 2021

- Trained automated processing and identification of glacial features (e.g., drumlins, lineations, and moraines) from Li-DAR data and satellite imaging.
- Investigated past glacier flow based on surface expression, and assisted with reconstructing past glacier movements throughout North America.
- Investigated preserved records of past earthquakes in western Quebec using seismic reflection profiling of Lake Simard, Quebec.
- Analyzed disturbed features in lake sediments and created fence diagrams to determine the extent and chronology of past earthquakes.
- First author: *Seismic reflection stratigraphy of Lac Simard, Quebec, Canada: mass flow sedimentation in glacial Lake Barlow-Ojibway.* Special Issue in GAC-MAC Glacial Session, Canadian Journal of Earth Sciences.

Awards

Queen Elizabeth II Graduate Scholarship in Science and Technology – $15000 2023
Government of Ontario

CRESS Summer Research Award – $14000 2021–2022
Centre for Research in Earth System Science, University of Toronto

NSERC Undergraduate Student Research Award – $7500 2021
Natural Sciences and Engineering Research Council, Government of Canada

Don Salt Memorial Scholarship – $800 2022
University of Toronto & Canadian Exploration Geophysics Society

Miscellaneous

Transportation
Driver's licence, boat license, drone license