Stephen Schroeder

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EDUCATION

BSC HONOURS IN GEOLOGY | University of Calgary

Graduated April 2019 | Calgary, AB

Thesis Title: Carbon Storage Dynamics of Saline lakes in the Cariboo Plateau, British Columbia

- Analysed aqueous and mineral data using Python, Excel, and Geochemists' Workbench
- Modelled lake geochemistry and potential to sequester atmospheric CO₂
- Prepared rock and aqueous samples for Optical Emission Spectrometry, Ion Chromatography, and X-Ray Diffraction analysis

EXPERIENCE

UNDERGRADUATE RESEARCHER | University of Calgary

January 2019 - Present | Calgary, AB

Thesis Title: Laboratory Constraints on the Kinetics of Pyrite Oxidation in Alkaline Waters

- Grant-funded position to perform undergraduate research
- Responsible for experimental design, literature review, and geochemical modelling of pyrite oxidation.

PODCAST HOST | ENDEAVOUR PODCAST

July 2018-Present | Calgary, AB

Hosted a weekly podcast, interviewed professionals of diverse backgrounds and communicated their stories and science to the general public. Developed and maintained podcast hosting and social media.

RESEARCH ASSISTANT | PALEOENVIRONMENTAL DYNAMICS GROUP

Summer 2017, Summer 2018 | Heidelberg, Germany

Supported research on Oligocene palaeoceanography and cryosphere modelling. Prepared, weighted, and diluted samples for ICP-OES analysis.

- Interpreted data and its relevance to the paleoclimate model using Excel
- Identification of foraminiferal morphospecies under a microscope
- Analysis of microscope and stable isotope data using Excel

STUDENT ASSISTANT | University of Calgary

September 2016 - May 2017 | Calgary, AB

Volunteered in a lab setting, supporting research on Swift Current Creek vertebrate fossil material.

SKILLS

PROGRAMMING

Python: NumPy and Pandas data processing. Contributed to open-source packages on GitHub: PyJanitor, Econ-ARK, and Trio Writing well formatted and documented code, unit testing with PyTest

Wolfram Language: Created a script which accesses the RunKeeper database in order to visualise my running history **Excel:** Projects involving INDEX, MATCH and IF functions

PROFESSIONAL

Science Communication • Resource Estimation • Geologic Mapping • Petrographic Microscopy • LETEX

AWARDS

2019 Top 3 in Department
2018 Top 60/500
Undergraduate Student Research Award
RISE-Globalink Research Internship