

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 and interpreted statistical trends in geochemical 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

- Implemented experimental procedure and critically evaluated results
- Performed literature review and and geochemical modelling of pyrite oxidation

PODCAST HOST | ENDEAVOUR PODCAST

July 2018-Present | Calgary, AB

- Interviewed professionals of diverse scientific backgrounds and interests
- Communicated personal 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
- Maintained microscope and stable isotope data using Excel

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

Resource Estimation: Statistical porosity estimation based on well-log data using WinGslib

Science Communication • Geologic Mapping • Petrographic Microscopy • \LaTeX

AWARDS

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|------|---------------------------|--------------------------------------|
| 2019 | Top Undergraduate Student | Faculty of Science IDEAS Award |
| 2019 | Top 3 in Department | Undergraduate Student Research Award |
| 2018 | Top 60/500 | RISE-Globalink Research Internship |

LANGUAGES

INTERMEDIATE

German • French