

# 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 CO<sub>2</sub>
- 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

### STUDENT ASSISTANT | UNIVERSITY OF CALGARY

September 2016 – May 2017 | Calgary, AB

- Supported lab-based research on fossil material
- Identified and selected important microscopic specimens

## 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 •  $\LaTeX$

## AWARDS

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