

Simon Sheng

Aspiring P. Geo Geologist | Geological Science

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RESEARCH INTEREST

Economic Geology, Mineral Deposits, Geochemistry, Structural Geology, Field Exploration & Mapping

EDUCATION

University of British Columbia (UBC)

Sep 2022 - May 2026 (Expected)

- Degree: Bachelor of Science
- Major: Geological Science
- GPA: 3.2/4.33, B (upper year: 3.55/4.33, B+)
- Go Global Award (2024)
- Key Courses: Mineral Deposits, Igneous Petrology, Metamorphic Petrology (A-), Structural Geology (A-), Sedimentology (A), Volcanology (A-), Field Geology; Geomorphology, Applied Geophysics (A-), Hydrogeology (A), GIS. In progress: Geochemistry, Advanced Mineral Deposits

WORK EXPERIENCE

Geo-Tech (core logging)

Jul - August 2025

Scottie Resources Corp.

Stewart, BC

- Fly-in-fly-out based, supported geo-teching and core logging (orientation, meter marks, TCR/RQD, specific gravity tests, carbonate tests, photography, data entry).
- Processed >250 m/day geo-teching with orienting core. Assisted QA/QC and sampling, maintained ticket chains and sample integrity. Identified key ore/host minerals, vein and unit types to inform daily drill-planning.
- Skills: **Geo-Teching, Core-Logging & Sampling, Mineral Deposit (Gold), Mineral & Ore ID**

RESEARCH / FIELD EXPERIENCE

Directed Study: Tourmaline Geochemistry for LCT Pegmatite Fertility (in progress)

Sep - Jan 2026 (Expected)

Student Researcher (Supervisor: Dr. Lee Groat), EOAS UBC

Vancouver, BC

- Built a workflow from polished thin-section to fertility ranking on tourmaline from a locality adjacent to the Prof petalite-subtype pegmatite from southeast BC.
- Captured textures/zoning (PPL/XPL, BSE/SE); ran EPMA point analyses & X-ray maps (carbon-coated)
- Plotted ternaries, discrimination diagrams; mapped core-to-rim zoning and Li-sensitive ratios to rank zones.
- Deliverable: figure set, report, and poster; recommended follow-up sampling transects for the highest-fertility targets.
- Skills: **Techniques (EPMA, BSE), LCT Pegmatites, Geochem Plotting, Report Writing**

Course Project: The Coupling Between Supercontinent and Superplume

Jan - Apr 2025

Student Researcher (Dr. Matthijs A. Smit), EOAS UBC

Vancouver, BC

- Synthesized timings of LIPs, LLSVP seismic structure, paleomagnetism, and geodynamic models, tracing causal links across deep-time datasets.
- Evaluated competing models (slab-controlled plume clusters vs. supercontinent insulation) and discussed degree-1/degree-2 mantle convection patterns and possible links to true polar wander, indicating a ~600 Myr mantle cycle.
- Conducted systematic literature search, integrated models, geophysical, geochemical, and paleomagnetic data. Delivered both a presentation and a written report, and received strong instructor feedback.
- Skills: **Geodynamics, Plate-tectonics, LIP, Literature-synthesis, Presentation**

Research Project: Indian Monsoon Weakening Event, 8.2 ka

Jun - Aug 2024

Research Assistant (Supervisor: Dr. Chuan-Chou Shen), National Taiwan University

Taipei, Taiwan

- Lab Work: Independently operated U-Th dating and C-O isotope laboratory workflows under SOPs including stalagmite sampling, chemical separation, dissolution, and mass spectrometry.
- Co-processed and interpreted datasets with the supervisor; results align with 8.2 ka cooling inferred from $\delta^{18}\text{O}$ proxies, indicating a ~150-year synchronized weakening of Greenland temperatures and Asian monsoons via AMOC variability.
- Presented findings at a departmental seminar, articulating uncertainties, QA/QC steps, and regional teleconnections.
- Skill: *Paleoclimate, U-Th-dating, C-O-isotopes, Stalagmite-sampling, Clean-lab Chemistry Workflow*

Field School

Apr - May 2025

Student, EOAS UBC

Oliver, BC

- Completed a 3.5-week intensive bedrock-mapping field school in Okanagan Valley with daily geological traverses, produced 1:5,000–1:10,000 maps, cross-sections, and geologic forming process.
- Logged outcrops using GPS and compass-clinometer; described lithology, alteration, and structures (bedding/foliation, faults, shear zones, lineations) and collected representative samples.
- Compiled field data into bedrock geological maps, cross-sections, and reconstructed lithostratigraphy and geologic history for the mapping area.
- Skills: *Mapping, Sampling, Structural Measurements, Rock & Mineral ID, ArcGIS Pro, Teamwork, Hiking*

Lab-section of Geology Courses

Sep 2023 - present

Student, EOAS UBC

Vancouver, BC

- **Petrology:** Performed precise observation and description of over 300 hand specimens and 400 thin sections and identified minerals and rocks with their characters and analyzed the formation.
- **Mineral Deposit:** Studied a wide range of mineral deposit types from hand-sample to regional tectonic scale. Described deposit characteristics, identified ore & host minerals in hand specimen. Interpreted ore-forming processes, and applied conceptual Source-Transport-Trap (STT) models.
- **Geomorphology:** Applied ArcGIS, air photos, and Google Earth Pro to evaluate landslides, glacial features, channel systems, and volcanic hazard zones while interpreting geological process and geomorphology.
- **Hydrogeology:** Analyzed baseflow patterns across 20 hydrological stations in Saskatchewan and Manitoba using USGS WHAT tool, creating streamflow hydrographs and calculating baseflow indices to identify groundwater discharge.

OTHER SKILLS

Software Skills: ArcGIS Pro, R (visualization), Python, Google Earth Pro, Jupyter Notebook, Excel, PowerPoint, Overleaf.

Others: BC Driver's Licence, First Aid & CPR-C/AED, Report Writing, Comfortable in Remote Fieldwork & Hiking, Lifting 50+ lbs.

