

CHRISTOPHE BROSSON

801-755-9275 – christophe.brosson (at) utah.edu - linkedin.com/in/cbrosson

EDUCATION

- 2006 Blaise Pascal University, CLERMONT-FERRAND, FRANCE
Master of Science – Earth Sciences Major: Geotechnical Engineering
- 2003 Montpellier II University, MONTPELLIER, FRANCE
Bachelor of Science – Earth and Planetary Sciences

PROFESSIONAL EXPERIENCE IN GEOSCIENCES

- 2024 - today **Sr. Laboratory Specialist** University of Utah, Salt Lake City, UTAH
Operational and logistical support to research and teaching laboratories in the Department of Geology and Geophysics. In charge of the mineral, rock and fossil collection. Sample preparation. Space management. Laboratory support for: Utah Paleomagnetic Center, MagMaX Lab, Core scanning, Portable XRF.
- 2019 - 2024 **Laboratory Manager** CMT Technical Services, Vineyard, UTAH
Supervise all laboratory testing on soils, concrete, and aggregates for the geotechnical engineering division and for the construction material testing division. Manage a team of 5 technicians.
- 2017 **Senior Technician in Biogeochemistry** Cardiff University, WALES
Prepare rock samples and run geochemical analyses.
- 2016 **Lab technician & Field assistant** University of California, DAVIS
Lab work in petrology and a one-month-long fieldwork in Baja California.
- 2011 **Field assistant** Caltech, PASADENA, CALIFORNIA
3-weeks fieldwork in the Salton Sea area. Deployment/retrieval of seismometers, GPS survey
- 2007-2010 **Geologist / Geotechnical Engineer** SigSol – CANNES, FRANCE
Lead geotechnical feasibility studies and failure analysis. Supervise all laboratory testing.
- 2005-2007 **Staff Geologist, Technician and Intern** Alpha BTP, CLERMONT-FERRAND, FRANCE
Laboratory and field testing/sampling for geotechnical engineering.

CERTIFICATIONS

- 2023 APNGA **Portable Nuclear Gauge Safety & US DOT HAZMAT**
RMET **Asbestos Building Inspector Initial**
ACI **Aggregate Testing Technician 1, Concrete Laboratory Testing Technician 1, Aggregate Base Testing Tech.**
- 2020 UDOT **Concrete Strength**
ACI **Concrete Strength Testing Tech.**
UDOT **Aggregates Plus, Embankments Plus**
- 2013 Board for Prof. Engineers & Geologists, CA **Engineer-in-Training**

PUBLICATION

Fru, E.C., Bahri, J.A., **Brosson, C.** et al. Transient fertilization of a post-Sturtian Snowball ocean margin with dissolved phosphate by clay minerals. *Nature Communications* 14, 8418 (2023). doi: 10.1038/s41467-023-44240-9

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TECHNICAL SKILLS

- Rock sample preparation: cutting, crushing, milling, polishing.
- Soil, aggregate and concrete sample handling, preparation, safekeeping.
- Core scanner and portable XRF
- Magnetometer: Kappabridge, Spiner, Cryo Superconducting.
- Geotechnical lab testing: Sieve analysis, Hydrometer, Consolidation, Moisture-density, California Bearing Ratio, Atterberg limits, Direct Shear, Vane Shear, Compressive strength of concrete.
- Geotechnical field-testing: Test pits, Trenches, Borehole monitoring, Dynamic penetrometer, Menard pressure-meter test, excavation observations
- Maintain/repair equipment (electric, mechanic, hydraulic, pneumatic)
- Geochemistry: Analysis of reduced inorganic sulfur by chromium reduction, Sequential Iron extraction, sample preparation in clean lab for isotopic analysis on ICP-MS: digestion in acids, chemical purification (Fe) in resin column.
- Petrology: Fabrication of parts for igneous petrology experiments: lathe, press, furnace, isomet saw, polisher, and grinder.
- Professional use of Excel, Word, PowerPoint, Outlook, Open office, google sheets/docs.
- 3D printing filament and resin fabrication
- Strong knowledge in web design HTML5, CSS3.
- Valid Driver's license with clean history.

MANAGEMENT SKILLS

- Rock, Mineral and Fossil teaching collection management.
- Field geology teaching logistical support.
- Provide operational and logistical support to engineers and project managers.
- Hire, train and supervise technicians and interns (civil engineering & geology)
- Space management: reorganized the layout of CMT's Utah county lab to increase safety and efficiency, made the plans for the layout of CMT's Weber County lab.
- Purchase lab and field supplies, procure new equipment.
- Manage equipment inventory
- Facility management
- Maintain a clean, safe, and efficient lab environment
- In charge of lab safety, prepare, review, and apply SOPs with risk assessments, ensure SDSs list is always up to date.

WORK EXPERIENCE IN OTHER FIELDS

2018	Landscape steward volunteer	Natural History Museum of Utah, SALT LAKE CITY
2011-15	French Instructor	Berlitz Language Inc., LOS ANGELES & NEW YORK CITY
	Teach French to teenagers and adults, private lessons, and classes of 15-20.	
2011-2013	Translator & video game linguistic tester	GameScribes, SANTA MONICA, CA
2000-2004	Factory Laborer	International Wire Group, ST CHAMOND, FRANCE
	Work on steel, copper, silver wire braiding machines	