

Dr. Marc Fassbender

Consulting Geoscientist
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Education

(Summer 2023)

Phd in Earth Science

University of Ottawa
- Ontario, Canada

(Nov. 2017)

M.Sc. in Petrology & Georesources

University of Erlangen-Nuremberg
- Bavaria, Germany

Key Skills

English and German
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Team leadership
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Communicational skills
●●●●○

Field work
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Petrology
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Sedimentology
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Structural geology
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Petrography
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Economic and exploration geology
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Machine learning & data science
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Electronic data processing
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Awards

Next Generation Explorer Award 2022
Data Integration | Team - CREATE

SMC Award at PDAC 2022
Best PhD Poster

University of Ottawa 2021
Teaching Assistant of the Year

SEG Student Research Grant 2019
Ar-Ar age dating

Profile

I am a consulting geoscientist and freelance geoscientist at RSC, holding a PhD at the University of Ottawa (Canada), a MSc and BSc at the University of Erlangen-Nuremberg (Germany). I am experienced in the fields of economic geology, geochemistry, and machine learning. My specialities include host rocks of VMS and SMS deposits including creation of prospectivity and lithotectonic classifier. I am experienced across different techniques (geochemistry, gravity, magnetics, and electromagnetics), was awarded with the Next Generation Explorer Award - Data Integration, SEG Student Research Grant and published research on exceptional HREE in olivine, genesis of the Vergenoeg F-Fe-REE deposit, geological mapping on the ocean floor and volcanism in modern and ancient regimes.

Relevant Experience

Consulting Geoscientist

INDEPENDENT & RSC MINING AND MINERAL EXPLORATION

Jan. 2023

- PRESENT

- Prospectivity analysis across several commodities and mineralisation styles (VMS/SEDEX, Stratiform/Hypogen/Supergene Mn-mineralisation, etc.)
- Data review and drilling advice: VMS (Yilgarn Craton)
- Lithodomaining and stream sediment analysis: VMS, Chromite (Oman)
- Greenstone belt wide prospectivity analysis: VMS, Fe, IOCG (Gabon)
- Machine Learning: several projects focused on lithodomaining, data integration, clustering, prediction, and imputation.

PHD STUDENT & TEACHING ASSISTANT

UNIVERSITY OF OTTAWA, ONTARIO, CANADA

Sep. 2018

- Jun. 2023

- Extensive knowledge in greenstone belts, VMS deposits, their potential modern analogs, with particular focus on volcanic host rocks
- Experienced in analyzing large datasets (>10000 samples), geostatistical methods and machine learning including PCA, t-SNE, random forest, XGBOOST, several clustering techniques, etc.
- Experienced in public talking thanks to numerous oral and poster presentations at international conferences, such as SEG 100 in Whistler
- Extensive experience in teaching during several teaching assistantships
- Experienced in numerous data processing, analysis and image techniques such as QGIS, loGAS, Petrel, Geoscience Analyst, R, Python, Knime, Leapfrog

M.SC. STUDENT

UNIVERSITY OF ERLANGEN, BAVARIA, GERMANY

Sep. 2015

- Sep. 2017

- Extensive knowledge on IOCG deposits (in particular Vergenoeg F-Fe-REE deposit) and experienced in petrography (reflected and transparent light)
- Worked at several laboratories and analytical facilities including drill core preparation, rock cutting, XRF, and producing glass for La-ICP-MS and XRF

ADDITIONAL ACTIVITIES AND RELEVANT COURSEWORK

- Finalist (Team CREATE) at the ongoing „Next Generation Explorer Award“ at the Prospectors and Developers Association Canada conference 2022
- One month Research Cruise M168 as petrologist at the North Atlantic
- Internship at the Consulting firm „Dorfner ANZAPLAN“ in Germany
- Additional coursework includes: Exploration Geochemistry | Laurentian University; Hydrothermal Ore Deposits | University of Ottawa; Geodata Analytics | University of Tasmania