



Google Scholar

## Stephanie Forstner, PhD

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LinkedIn



### PROFESSIONAL SUMMARY

Ambitious structural geologist with 5+ years industry experience spanning regional to prospect -scale subsurface data acquisition, exploration, development & reservoir characterization plus 8 years researching a naturally fractured EGS and tight gas sandstone outcrop analog focused on fracture network quantification & characterization, basin modeling & geomechanics.

### SKILLS

- Geologic Mapping & Modeling
- Resource/ Reserve Economics
- Well log Petrophysics
- Subsurface Stress & Pore Pressure
- 2D & 3D Seismic Interpretation
- Fracture Network Analysis
- Petrography
- SEM-CL/EDS/BS Imaging
- Fluid Inclusion Petrography & Microthermometry
- Geomechanics
- Python & Geostatistics
- Supervised Machine Learning
- Basin & Reservoir Quality Modeling

### WORK EXPERIENCE

- Owner & Geoscientist – Diagenyx, LLC 8/2025 – present  
Lakewood, CO
  - Pore to basin subsurface characterization
  - Resource assessments, geomechanics, reservoir to basin mapping & modeling
  - Specialized in petrography, reservoir quality prediction & fracture network evaluation
- Geoscience Intern – Corporate Reservoir Characterization – SM Energy Company 5/2025 – 8/2025  
Denver, CO
  - Built a 3D Petrel pore pressure model in the Uinta Basin to enhance subsurface characterization
  - Collaborated with 25+ engineers & geologists to integrate pressure and log datasets
  - Quickly QC'd 5,000+ data points in Spotfire across an overpressured Tertiary petroleum system
  - Model used to optimize drilling, completions & development decisions
- Research Scientist Associate II – Bureau of Economic Geology 1/2016 – 9/2018  
Austin, TX
  - Conducted 4 case studies for industry members of the **Fracture Research Application Consortium**
  - Contributed to 8 contract reports, prepared 9 technical reports & presented at 5 conferences
  - Developed new methodologies & techniques for mapping fluid inclusions & fractures
- 1<sup>st</sup> Consulting Geologist – LOGOS Resources I, LLC 5/2014 – 3/2015  
Farmington, NM
  - Integrated geology, petrophysics & production data to construct a petrophysical model
  - Established the geologic framework that directly led to the best producing well in the SJB
  - Planned 2 successful horizontal wells & prioritized acreage for acquisition & divestitures
- Consulting Geologist – Kinder Morgan CO<sub>2</sub> 7/2012 – 8/2013  
Durango, CO
  - Mapped & correlated the Mississippian Leadville limestone across 4-corners region
  - Deliverables included regional structure & intrusive-bodies maps, isopach map, 5 regional cross-sections, literature review & literature data integration
- Consulting Exploration Geologist – Ridge Resources, LLC 6/2011 – 9/2014  
Durango, CO
  - Upstream generation, evaluation & field development for multiple productive horizons throughout the TX and LA clastic Eocene trend using 2D seismic, well logs & production data
  - Assisted with the drilling & completion of 3 economic stacked-pay conventional prospects
  - Marketed, promoted & brokered \$22.2 MM worth of multi-field divestitures, seismic shoots, prospects, overrides, working interest & minerals
- Owner & Geologist – Spudlet Exploration & Consulting, LLC 6/2011 – 9/2015  
Durango, CO
  - Provided a range of geological services for upstream hydrocarbon & CO<sub>2</sub> projects
  - Generated 2, evaluated 20+ & marketed 6 conventional oil & gas prospects
  - Brokered working interest & royalties for 6 clients
  - Assessed subsurface data, maps & models to define resource & quantify risk
  - Collaborated with & reported to cross-functional teams to ensure project success
  - LA & TX onshore Miocene & Eocene | CO, UT, AZ & NM Pennsylvanian & Mississippian | San Juan Basin, NM Cretaceous

## EDUCATION

PhD in Geosciences, focus on Structural Geology 8/2018 – 12/2024  
The University of Texas at Austin, Jackson School of Geosciences  
Dissertation: *Scale dependent fracture networks in the context of sandstone diagenesis*

Bachelor of Science in Geology 1/2008 – 5/2012  
Fort Lewis College, Department of Geological Sciences  
Thesis: *Depositional & diagenetic controls on reservoir quality, Upper Wilcox Sandstone, Fields Field, LA*

## SOFTWARE

- Petrel
- Petra
- Touchstone Reservoir Quality Modeling
- IHS Enerdeg
- ArcGIS
- Genesis 1D Burial & Basin Modeling
- TIBCO Spotfire

## RESEARCH HONORS & AWARDS

\*\*2<sup>nd</sup> most downloaded in 2023 and 3<sup>rd</sup> most cited paper in Journal of Structural Geology 2022-2025

University of Texas at Austin Graduate School Summer Fellowship	\$8,550	3/2024
Zetaware Genesis Burial History Software Grant	n/a	1/2024
Endowed Presidential Scholarship	\$3,500	11/2023
UT Dept. of Earth and Planetary Sciences Analytical Fees Award	\$8,400	6/2023
Geocosm - Touchstone & T-Analyze Software Grant	n/a	4/2023
Mrs. Carol Pitts Off-Campus Research Award	\$1,909	3/2023
*Voted Best-in-Class Geothermal Prospect	n/a	12/2022
Structural Diagenesis Initiative Travel Fellowship	\$2,840	11/2021
Graduate Admission & Support Committee Off-Campus Research Award	\$985	3/2020
Ms. Marion W. Deford Off-Campus Research Award	\$4,500	3/2020
BEG Grants & Awards Career Development Publication Award	\$3,583	11/2017
Whiting Petroleum Undergraduate Thesis Lab Grant	\$20,000	1/2012
EP Energy Undergraduate Thesis Research Grant	\$8,410	9/2011
David L. Bucknam Memorial Scholarship	\$1,000	4/2011
Fort Lewis Dean's Research Support Grant	\$2,000	3/2011

## PEER-REVIEWED PUBLICATIONS

Elliott, S.J., **Forstner, S.R.**, Wang, Q., Corrêa, R., Shakiba, M., Fulcher, S.A., Hebel, N.J., Lee, B.T., Tirmizi, S.T., Hooker, J.N., Fall, A., Olson, J.E., Laubach, S.E., 2025. *Diagenesis is key to unlocking outcrop fracture data suitable for quantitative extrapolation to geothermal targets*, *Frontiers in Earth Science*, v. 13, 2545007.

**Forstner, S.R.**, Corrêa, R., Wang, Q., Laubach, S.E., 2024. *Fracture length data for geothermal applications*. In Gill, C.E., Goffey, G., Underhill, J.R., eds., *Powering the Energy Transition through Subsurface Collaboration*, Geological Society of London, Energy Geoscience Conference Series, v. 1.

**\*\*Forstner, S.R.**, & Laubach, S.E., 2022. *Scale-dependent fracture networks*. *Journal of Structural Geology*, 165, 104748.

Baqués, V., Ukar, E., Laubach, S.E., **Forstner, S.**, Fall, A., 2020. *Fracture, dissolution, and cementation event in Ordovician carbonate reservoirs, Tarim Basin, NW China*. *Geofluids*, 9037429.

## GRADUATE SHORT COURSES & AUDITS

Microtectonics	Cees-Toy-Hawemann	3/2023
Intro to Fluid and Melt Inclusions	Bodnar	9/2022
Intro to Geostatistics	Pyrzcz	8/2019
1st School of Sandstone Diagenesis	Bonnell-Caracciolo-Lander	8/2018
Siliciclastic Petrology	Milliken	8/2017
Reservoir Geomechanics	Zoback	6/2017
SEM imaging	Elliot	6/2016
Point Counting Methodologies	Bonnell-Lander	10/2015

## GRADUATE COURSES

- Crustal Geofluids
- Advanced Geomechanics
- Seismic Structural Analysis
- Python in Geoscience Research
- Subsurface Machine Learning
- Flemings
- Espinoza
- Hennings
- Christeson
- Pyrcz
- Thermodynamics & Phase Behavior
- Brittle Structure
- Geothermal Energy\*
- Advanced Structure
- Continental Tectonics
- DiCarlo
- Laubach
- Wisian & Ross
- Cloos
- Cloos