

# Yaser A. Alzayer

+1(512) 576-2805  
zayer@utexas.edu

---

## EDUCATION

- Ph.D, Geological Sciences Expected 2018  
*The University of Texas at Austin, Jackson School of Geosciences*  
Advisor: Charles Kerans, Christopher Zahm  
Dissertation Title: Fractures in Carbonate Mound Complexes – Finite-Element Modeling of Evolving Rock Properties and Differential Compaction during Icehouse Climatic Conditions
- Master of Science, Geological Sciences Aug 2014  
*The University of Texas at Austin, Jackson School of Geosciences*  
Advisor: Peter Eichhubl  
Thesis: Fracture Growth Kinematics in Tight Sandstone Reservoirs
- Bachelor of Science, Geology May 2010  
Minor in Business  
*University of Kansas (KU)*  
Advisor: Mike Taylor  
Thesis: Quantifying slip rates on Andean thrust faults in Colombia & Argentina

## RELEVANT COURSEWORK

Advanced Structural Geology, Reservoir Geology, Sequence Stratigraphy, Siliciclastic Petrography, Crustal Geofluids, Formation Evaluation, Brittle Structure, Reservoir Geomechanics, Rock Physics, Carbonate Depositional Systems.

## RELEVANT RESEARCH PROJECTS

- Mechanical Stratigraphy and Upscaling of Elastic Properties in the Niobrara Reservoir
- Sand injectites mapping and interpretation in Ponoche Hills, Ca
- Multidisciplinary geologic study of an oil field in Kansas

## SKILLS

• Fracture characterization, Elfen Finite Element Modeling, Microsoft Office, Seisworks, Geoprobe, Geoframe, ArcGIS, Adobe Photoshop and Illustrator, SEM-cathodoluminescence imaging, carbonate and siliciclastic petrography, carbonates core description, logs interpretation, Matlab.

## EXPERIENCE

### Saudi Aramco

Jul 2010- Aug 2012  
Dhahran, Saudi Arabia

#### Wellsite Geologist—Area Exploration Department (8 months)

- Monitored exploration and development wells
- Determined casing and coring points
- Supervised coring operations
- Handled and described cores and cuttings at well sites
- Supervised service companies mud logging units (if present)
- Prepared daily geologic reports for exploration management
- Trained summer interns in wellsite geology

#### Exploration Geologist – Area Exploration Department (7 months)

- Interpreted 3D seismic data
- Conducted post-drill prospect appraisals
- Relayed post-drill appraisal results to the exploration management
- Liaised with seismic processing geophysicists for processing quality control

**Carbonate Sedimentologist, Exploration Technical Services Department (6 months)**

- Participated in a regional stratigraphic study
- Described carbonate cores from one of the most prolific hydrocarbon reservoirs in the world
- Calibrated core descriptions with thin sections
- Conducted image logs fracture and facies interpretation
- Participated in petrophysical study on rock typing

**Research Geologist– EXPEC Advanced Research Center (5 months)**

- Conducted a geostatistical study on lateral trends in reservoir porosity
- Participated in organizing interns training

**University of Kansas  
Teaching Assistant**

Summer 2008

- Assisted in teaching an introductory field course to Colorado, Utah, and Wyoming.
- Arranged trip logistics; guided students through field exercises; evaluated students' work

**FIELD EXPERIENCE**

- Field trip leader, Pennsylvanian mound complexes, Sacramento Mountains, NM 2016
- Pleistocene, Holocene, and modern upper shoreface and reef carbonates, San Salvador, Bahamas 2016
- Carboniferous Carbonate Mound Complexes, Sacramento Mountains, New Mexico 2015
- Cretaceous carbonates, shoreface and reef facies in Central Texas 2014
- Fractures in the Alberta fold and thrust belt, Alberta, Canada 2013
- Brittle Structures, San Rafael Swell, Eastern Utah 2013
- Fracture Investigation in the Eribol and Torridonian Formations., NW Scotland 2013
- Sequence Stratigraphy of the Guadalupe Mts, Carlsbad, NM 2013
- Ponoche Sand Injectities Complex, Ponoche Hills, CA 2013
- Marcellus Shale fractures, Rochester, NY 2012
- Paleozoic Section of Arabia, NW Saudi Arabia 2012
- Mesozoic Section of Arabia, Central Saudi Arabia 2011
- Stratigraphy field trip, Ouachita Mts, OK. 2009
- Neotectonic field mapping, Orocochia Mts, CA. 2009
- GIS mapping project- Fish Lake Valley, NV 2008
- University of Kansas Field Camp- Colorado 2008
- Roadside Geology fieldtrip – Kansas, Colorado, Utah, Wyoming 2007

**PROFESSIONAL WORKSHOPS**

- Reservoir Geomechanics, Stanford online by Mark Zoback 2015
- Elfen Finite Element Software Training, Austin, TX 2014
- Applied concepts in naturally fractured reservoirs, AAPG, Houston, TX 2014
- Black shale core workshop, AAPG, Pittsburgh, PA 2013
- Sedimentology of the Unayzah Formation core workshop, Saudi Aramco 2010

**HONORS AND AWARDS**

- |  |   |
|--|---|
| 2016 AAPG Foundation Meckel Family Named Grant | 1 <sup>st</sup> place SEPM Carbonate Research Group Photo contest |
| Graduated with Distinction (KU)                | Departmental Honors (KU)  |
| Global Awareness Program (KU)                  | Saudi Aramco Master's Fellowship                                  |
| Research Experience Program (KU)               | Saudi Aramco PhD Fellowship                                       |

**PEER-REVIEWED PUBLICATIONS**

**Alzayer, Y., Eichhubl, P., Laubach, S.E., 2015, Non-linear growth kinematics of opening-mode fractures: Journal of Structural Geology, v. 74, p. 31-44.**

## CONFERENCE ABSTRACTS AND PROCEEDINGS

- Alzayer, Y.,** Zahm, C., 2017, Geomechanical Modeling of Pennsylvanian Carbonate Mound Complexes: early fracturing related to differential compaction and evolving rock properties, Abstract (presentation), AAPG Annual Convention and Exhibition, Houston, Texas.
- Alzayer, Y.,** Zahm, C., Janson, X., 2016, Geomechanical modeling of early-formed fractures related to diagenesis, rock property evolution, and differential compaction, Pennsylvanian Holder Fm., NM, extended abstract (presentation), Reservoir Characterization Laboratory Annual Consortium Meeting, Austin, TX.
- Alzayer, Y.,** Zahm, C., Janson, X., 2016, Aspects of geomechanical modeling: insights from digital outcrop models and rock mechanical properties, Poster, Reservoir Characterization Laboratory Annual Consortium Meeting, Austin, TX.
- Alzayer, Y.,** Zahm, C., Janson, X., Kerans, C., 2016, Fracture Development Related to Differential Compaction and Mechanical Stratigraphy, Sacramento Mountains, NM, Abstract (presentation), AAPG Annual Convention & Exhibition, Calgary, Canada.
- Eichhubl, P., Laubach, S.E., Olson, J.E., Fall, A., Fan, Z., Major, J., Callahan, O., Chen, X., **Alzayer, Y.,** Doungkaew, N., 2016, Chemical-Mechanical Interactions in Natural Fracture Growth, Abstract, AAPG Annual Convention & Exhibition, Calgary, Canada.
- Alzayer, Y.,** Zahm, C., Kerans, C., Janson, X., 2016, Mechanical Stratigraphy and fracture characterization of icehouse carbonate mounds, differential compaction, fractures and modeling, Abstract & Poster, Jackson School of Geosciences Student Research Symposium, Austin, TX.
- Eichhubl, P., **Alzayer, Y.,** Laubach, S.E., Fall, A., 2014, Growth Kinematics of Opening-Mode Fractures, American Geophysical Union Fall Meeting, Abstract, San Francisco, CA.
- Alzayer, Y.,** Fall, A., Eichhubl, P., Laubach, S. E., 2014, Fracture Growth Processes in Sandstone Inferred by Textural and Fluid Inclusion Investigations of Crack-Seal Fracture Cements, Abstract & Poster, AAPG 2014 Annual Convention & Exhibition, Houston, Tx.
- Alzayer, Y.,** Eichhubl, P., Laubach, S.E., 2013, Preliminary Results of Fracture Growth Processes in Sandstone Inferred by Textural Investigations of Crack-seal Fracture Cements, Abstract & Poster, Fracture Research and Application Consortium Annual Meeting, Austin, TX.
- Alzayer,** 2013, Fracture growth processes in sandstone inferred by textural investigations on crack-seal fracture cements, Abstract & Poster, Jackson School of Geosciences Student Research Symposium, Austin, TX.

## OTHER PRESENTATIONS & PUBLICATIONS

- Alzayer, Y.,** 2016, Example of a Pennsylvanian Icehouse Ramp, Sacramento Mountains, New Mexico, Guest Lecturer, Carbonate Depositional Systems Class, Jackson School of Geosciences, University of Texas at Austin.
- Alzayer, Y.,** 2014, Mechanical Stratigraphy and Upscaling of Elastic Properties using wireline logs in the Niobrara Reservoir, presentation, JSG Rock Physics.
- Alzayer, Y.,** 2014, Fracture Growth Kinematics in Tight Sandstone Reservoirs, Master's Saturday Lecture Series, Jackson School of Geosciences, University of Texas at Austin.
- Alzayer, Y.,** 2011, Save Energy for the next generation, article, SPE Sandrose Newsletter, December Issue, SPE Saudi Arabia Chapter, Dhahran, Saudi Arabia.
- Alzayer, Y.,** Taylor, M., 2010, Quantifying Slip Rate of the Yopal Thrust, Colombia, Presentation, University of Kansas Tectonics Seminar, Lawrence, Ks.

## PROFESSIONAL ORGANIZATIONS

American Association of Petroleum Geologists  
Geological Society of America  
American Rock Mechanics Association  
European Association of Geoscientists and Engineers  
Society of Petroleum Engineers  
Dhahran Geological Society  
National Society of Collegiate Scholars  
Golden Key International Honor Society  
Sigma Alpha Lambda: National leadership and honors organization

## Service

Technical editor, SPE Reservoir Evaluation & Engineering- Formation Evaluation	2013-present
Reviewer, Journal of Petroleum Science Research	2015-present
Mentor, Project MALES, University of Texas at Austin	2015

Member, Jackson School Research Symposium Organizing Committee	2015
Prospective students weekend host and presenter at UT	2013
Member, Sand Rose Editorial Board, SPE-Saudi Arabia Chapter Newsletter	2011-2012
Keynote speaker at the KU international student graduation ceremony	2010
International Orientation Volunteer at KU	2009
Invited panel member on cultural adjustment at KU	Aug 2009, Jan 2009, Jan 2010
Member, KU student senate International Affairs Committee	2008-2009
President, KU International Student Association	2008-2009
Assistant Social Chairman, KU International Student Association	2007-2008
KU International Student Ambassador	2007-2008