The joy of life comes from our encounters with new experiences, and hence there is no greater joy than to have an endlessly changing horizon, for each day to have a new and different sun.

—Christopher McCandless
Dear Prospective Petroleum Industry Recruiter:

The Baylor University Department of Geology is pleased to make you aware of our resident graduate students available for recruitment during 2015-2016. All students profiled within this brochure have participated within Baylor Geology’s Applied Petroleum Studies (APS) curriculum and seek entry-level placement within the petroleum industry. Founded in the Fall semester of 1995, Baylor’s innovative APS program prepares students for petroleum careers through a rigorous classroom curriculum and applied research experiences (Tables 1 and 2). Students engaged in applied research complete production- and exploration-scale projects through guidance provided by Baylor faculty and oftentimes industry professionals. All projects have real-world objectives that mitigate the geologic risk associated with either the exploration for or production of conventional and unconventional resources. Projects may be completed by M.S. students for thesis credit, and/or Ph.D. students for course credit.

In both cases, students gain practical experience in the application of geoscience concepts and technologies, and sponsor companies receive solutions to geologic questions. Our close collaboration with industry keeps our curriculum, students and faculty up-to-date and aligned with current industry needs and practices. We take pride in the fact that 100% of Baylor graduate student participants within the APS program have been placed within the petroleum industry. Examples of companies that have hired entry-level APS students include the following: Anadarko Exploration, Chevron, ConocoPhillips, EnCana, ExxonMobil Exploration, ExxonMobil Upstream Technical Computing, HESS, Husky Energy, Jones Energy, Mewbourne Oil Company, Nexen, Noble Energy, Occidental Petroleum, Pioneer Natural Resources, Royal Dutch Shell, Samson Resources, Talisman Energy, XTO.

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Baylor Geology welcomes your recruitment of our current students. If you would like to schedule a date for on-campus interviews, please contact our Office Manager Paulette Penney. Paulette’s email address is Paulette_Penney@baylor.edu, and her direct phone number is (254)710-2178. For more information about the Department of Geology at Baylor University, please visit the following website: http://www.baylor.edu/geology/.

Sincerely,

Stacy Atchley
Professor and Chair
Department of Geology
Baylor University

Table 1. Baylor APS course concentrations and topics

<table>
<thead>
<tr>
<th>Disciplines</th>
<th>Course Topics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Structural Geology</td>
<td>Structural Geology/Hydrocarbon Petroleum Exploration.</td>
</tr>
<tr>
<td>Geophysics</td>
<td>Introduction to Seismology, Advanced Seismic Interpretation, Geophysical Exploration I, Geophysical Exploration II, Gravity Magnetic and Electrical Exploration, Seismic Data Analysis.</td>
</tr>
<tr>
<td>Geochemistry</td>
<td>Geochemistry, Isotope Geochemistry, Organic Geochemistry.</td>
</tr>
<tr>
<td>Spatial Data Management</td>
<td>Introduction to Geographical Information Systems (GIS), Applied GIS.</td>
</tr>
</tbody>
</table>

Table 2. APS projects completed over the past 5 years.

<table>
<thead>
<tr>
<th>Year</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010-present</td>
<td>Stratigraphic controls on bitumen distribution and SAGD recovery potential within the Devonian Grosmont and Upper Ireton Formations, NE Alberta.</td>
</tr>
<tr>
<td>2013-2014</td>
<td>The distribution of organic matter and controls on its distribution within the Upper Cretaceous Eagle Ford Shale of central Texas.</td>
</tr>
<tr>
<td>2012-2013</td>
<td>Development risk assessment of the Mississippian Chat Formation across the Lost Springs Field area of central Kansas.</td>
</tr>
<tr>
<td>2010-2011</td>
<td>Regional exploration risk assessment of the Upper Devonian Jean Marie and Kakisa formations of northeastern British Columbia.</td>
</tr>
<tr>
<td>2010</td>
<td>Depositional controls on reservoir quality within the Jurassic Norphlet Formation, Deep Water eastern Gulf of New Mexico.</td>
</tr>
</tbody>
</table>

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Sincerely,

Stacy Atchley
Professor and Chair
Department of Geology
Baylor University

Table 2. APS projects completed over the past 5 years.
Kristin Arndt
Master’s Candidate
Focus
Applied Sequence Stratigraphy
Dissertation
“Sequence-stratigraphic-based production optimization of a yet-to-be finalized conventional oil field in Alberta, Canada.”
Advisor
Dr. Stacy Atchley
Graduation
May, 2017
Contact
Kristin_Arndt@baylor.edu
Work Experience and Skills
Research Assistant, University of Oklahoma
X-ray Fluorescence Analyzer on core cuttings, microtextural analysis using the Scanning Electron Microscope
Throughout my life I have always carried a passion for geology, and while growing up in Oklahoma City, you could say I was “sooner born and bred.” Both of these combinations rightfully led me to the University of Oklahoma to pursue a Bachelor of Science degree in Geology. Throughout my undergraduate career, I enjoyed being involved in the Pick and Hammer Geology club, OU’s AAPG and GSA student chapters, as well as my social sorority where we actively participated in campus and community outreach events.
I am very appreciative for the lab training I attained through generous professors and peers, especially with my undergraduate research project titled, “Microtextural Analysis of the French Massif Central Quartz Sand to infer Cold Climate Weathering (Pennsylvanian-Permian, Lodeve Basin, France).”
Studying abroad in Ecuador and Colombia granted me the unique ability to learn about the international oil and gas community. I enjoy hiking, dancing, being creative, traveling and simply spending quality time with family and friends. I am very excited to start my graduate career at Baylor University in order to become a young leader and asset to the oil and gas industry.

Ian Byram
Master’s Candidate
Focus
Sequence Stratigraphy, Terrestrial and Marine Sedimentology, Applied Petroleum Studies
Dissertation
“Depositional History, Diagenetic Controls, and Reservoir Quality of the Rodessa Formation in Northwest Louisiana”
Advisor: Dr. Steve Dworkin
Graduation: May, 2016
Contact
Ian_Byram@baylor.edu
Work Experience and Skills
Geology Intern, Sequitur Energy Resources
Geologic analysis of Eaglebine Play; isopach, structure, and GOR mapping, as well as correlation across the East Texas Basin; extensive use of Petra Software to create maps and cross sections
Geology Intern, Forestar Group Inc.
Well log organization and cataloging; database development and management; extensive use of IHS Enerdeq and Petra
Roughneck and Mudlogger, Saxon Energy Services Inc.
Worked as a roughneck on the rig floor; gained experience with mudlogging and examining cuttings; gained industry perspective from the ground up
I was born in San Francisco, California, but have lived in Singapore, Alabama, Texas, and South Carolina. I have always loved geology, but became interested in the oil and gas industry after speaking with several geologists working in the industry. Currently, I finished my B.S. in geology at the College of Charleston, and I am a new M.S. student within the Baylor Geology Applied Petroleum Studies program. Outside of geology I enjoy hiking, kayaking, and horseback riding.

I grew up in Yukon Oklahoma and have lived on a farm most of my life. I was the first one in my family to attend college; first for one year at Redlands Community College and then The University of Oklahoma. Initially, I pursued a business degree, but quickly changed to geology after an introductory class. I graduated in May 2013 with a B.S in geology, and in began my M.S. student within the Baylor Geology Applied Petroleum Studies program. Outside of geology I enjoy hiking, kayaking, and horseback riding.
Brandon Rasaka
Master’s Candidate

Focus
Structural Geology, Earthquake Seismology, Faults, GIS

Dissertation
“Correlation of Selected Earthquakes with Seismogenic Faults, Central Oklahoma”

Advisor
Dr. Vince Cronin

Graduation
May, 2016

Contact
Brandon_Rasaka@baylor.edu

Work Experience and Skills
Intern, Jones Energy, LLC
Summer of 2015

Imperial Barrel Award, BYU-Idaho
Clastic petrophysical and seismic interpretation, petrophysical petroleum analysis, petroleum system characterization, Petra, Kingdom Suite

GIS Tech
Digital elevation model analysis to identify and correlate sub-loess basalt flows, geologic map digitization

A native to Oregon, I grew up hiking in the Cascades and Coast ranges as a Boy Scout and came to love and appreciate all things geological and related to the outdoors. While attending BYU-Idaho, I met and married my wife, had four children, and earned my B.S. in Geology. I also competed on the only undergraduate IBA team in the 2014 Rocky Mountain Section, where we won Third Place.

Now, as a recipient of the Geology Petroleum Master’s Program Fellowship at Baylor University, I am studying a swarm of earthquakes in central Oklahoma for my Master’s thesis, attempting to locate the fault(s) that generated them.

Gift Ntuli
Master’s Candidate

Focus
Seismic Data Processing and Interpretation, Exploration Geophysics

Dissertation
“Ps receiver function imaging of crustal structure and Moho topography beneath the Northeast Caribbean”

Advisor
Dr. Jay Pulliam

Graduation
May, 2016

Contact
Gift_Ntuli@baylor.edu

Work Experience and Skills
ExxonMobil Bighorn Camp
Integrated Basin Analysis, Petroleum play mapping, seismic interpretation, Prospect evaluation

Research Assistant, Institute of Ocean and Space, University of New Hampshire
Data acquisition from the ACE spacecraft, FORTRAN code debugging

Growing up in Zimbabwe, I was directly affected by the unavailability of electricity, thus stirring up my interest in providing energy to communities. Since then, I have been academically preparing myself for a career in the oil industry. In 2006, I was one of four students selected from Zimbabwe to attend high school at the prestigious United World Colleges where I studied Math, Chemistry and Physics. Afterward, I enrolled at Colby College, graduating in May 2014 with a double major in Geology and Physics. Attending a liberal arts college allowed me to strengthen my business and interpersonal skills, both integral to business operations in oil and exploration industries.

Currently, I am completing my Master’s in Geophysics at Baylor University and anticipate graduating in May 2016. An entrepreneur and problem solver, I enjoy finding innovative solutions to challenging and complex problems. Also, having lived in four different countries, I am an inquisitive and vigilant individual who excels in diverse work teams and environments. My hobbies include collecting rare maps and vintage watches.
I was born in mid-Michigan and raised in a small town called Fenton. I did not begin to experience geology until I took vacation during spring break in high school to Bozeman, Montana to hike and go to calcite mines for a week. That drove me to want to pursue a degree in geology from Grand Valley State University in Allendale, MI. I graduated with a B.S. in 2014 with majors in both geology and mathematics from GVSU. I wanted to further my education and experiences by attending graduate school while also knowing that I wanted the chance to work in oil and gas, so I accepted an offer from Baylor University to start work on my Master’s Degree in Geophysics and moved south.

I plan to graduate from Baylor University in May of 2016 and publish my thesis, “Geodetic constraints on deformation and earthquake focal mechanisms in the Dominican Republic” in a professional geophysics journal. Since attending Baylor University I have joined AAPG and have attended professional meetings in both Houston, TX and Laramie, WY. My main interest aside from geophysics is sports, both playing and watching.
Victoria Worrell  
**Master’s Candidate**

**Focus**
Structural Geology, Applied Geophysics

**Dissertation**
"Seismo-Lineament Analysis Method (SLAM) Applied to the South Napa Earthquake"

**Advisor**
Dr. Vince Cronin

**Graduation**
May, 2016

**Contact**
Victoria_Worrell@baylor.edu

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Work Experience and Skills

**Intern, Pioneer Natural Resources**
3D Seismic Reservoir Modeling, Upcoming summer of 2015

I began my undergraduate career as a physics major at Middle Tennessee State University in my hometown of Murfreesboro, TN. Soon after beginning college, I realized how exciting geology is, as it encompasses all aspects of the mathematics and science I loved throughout school, so I changed my major. I excelled in the department, earning the Senior Honors Award and Geology Student of the Year Award in 2013. That year, I also completed my Undergraduate Honors Thesis, “A Petrological and Geochemical Investigation of Tertiary to Quaternary Magma Evolution in the Mount Hood Area, Cascade Range, North America” in May of 2014. I graduated Summa Cum Laude with Honors Distinction.

I then moved here, to Waco, Texas, to continue my education by pursuing a M.S. Degree in Geology with a focus on Structural Geology, Engineering Geology, and Applied Geophysics. I have been lucky to be considered both a Buchanan Fellow at Middle Tennessee State University and a Petroleum Fellow here at Baylor University. In my spare time, I enjoy shooting, fishing, and dancing.

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Mohit Agrawal  
**Ph.D. Candidate**

**Focus**
Seismology, Seismic Inversion, Exploration Geophysics, Seismic Data Processing and Interpretation, Seismic Modeling

**Dissertation**
"Seismic Velocity Estimation in the Middle East from Multiple Waveform Functionals: P & S Receiver Functions, Waveform Fitting, and Surface Wave Dispersion"

**Advisor:** Dr. Jay Pulliam

**Graduation:** December 2015

**Contact:** Mohit_Agrawal@baylor.edu

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Work Experience and Skills

**Intern, Oil and Natural Gas Corp.**
3D seismic data acquisition, processing and interpretation

**Summer Intern, University of Texas at Austin**
Receiver functions, common conversion point stacking, migration, optimization

**Summer Intern, University of Wyoming**
3D modeling, Petrel, carbon sequestration, geophysical monitoring, well-log data

**Summer Intern, Colorado State University**
Seismic anisotropy, Global seismic network, seismic data analysis

I was born and raised in India near the Taj Mahal by the banks of mighty river Yamuna. Because of my family’s scientific background, I always loved solving critical problems in mathematics and physics. Given my interests, I opted for pursuing career in geophysics where I can utilize and improve my skill sets towards finding solutions to unresolved problems in oil and gas industry. I received my master’s in Applied Geophysics from Indian School of Mines, Dhanbad. During my Master’s, I computed fractal correlation dimensions for clustering and deformation of earthquakes and successfully defended thesis titled “Multifractal Analysis of Earthquake in Haiti Region”. The fantastic environment for research in college and lectures from professors in classes intensified my desire to pursue Ph.D. degree in geophysics. In spring of 2012, I came to Baylor as a Ph.D. student where I have been significantly contributing on various innovative research projects for more than three years. Apart from academics, I have been also involved in organizing various other social activities which have served to enhance my overall team work and organizational skills.
Bulbul Ahmmed
Ph.D. Candidate

Focus
Reservoir fluid flow modeling

Dissertation
“The development and characterization of fracture flow systems in response to hydrofracturing operations.”

Advisor
Dr. John Dunbar

Graduation
May, 2019

Contact
Bulbul_Ahmmed@baylor.edu

Work Experience and Skills
Banglapire
Drilling in Bengal Basin at different depth to analyze the depositional system of sedimentary rock in the piedmont region of Himalayan

University of Dhaka
Analyzed coastal sediment to assess the hydrostratigraphy of the south east part of Bangladesh

Southwest partnership for CO2 sequestration
Reservoir fluid flow modeling, reactive transport modeling, Petrel, Tough, Toughreact, Modflow, Fortran, Matlab

I was born and raised in Bangladesh. I got interested in geology seeing the river flow system and sedimentation in my riverine country. I got my Undergraduate (2011) and graduate (2013) in University of Dhaka, Bangladesh and in 2013 I came to University of Missouri to do my Master’s on reservoir fluid flow and reactive transport modeling due to CO2 injection in Farnsworth Hydrocarbon Unit, northern Texas.

I have completed my Master’s in May, 2015 and will join Baylor University in fall 2015 for my Ph.D. I have served as vice president of SEG during my Undergraduate in University of Dhaka and as President of Bangladesh Student Association, University of Missouri. I love all sorts of games where it is necessary to use skill and strength, and I love to play soccer.

Adam Davis
Ph.D. Candidate

Focus
Stratigraphy, Sedimentology, Paleoclimatic Studies, Applied Petroleum Studies

Dissertation
“Paleoclimate and Sequence Stratigraphic Reconstruction of the Paleocene Nacimiento Formation of the San Juan Basin, New Mexico”

Advisors
Dr. Stacy Atchley and Dr. Daniel Peppe

Graduation
May, 2017

Contact
Adam_Davis1@baylor.edu

Work Experience and Skills
Intern, Anadarko Petroleum Company
Depositional modeling using high-resolution mapping of 3D seismic volume, well log and paleontology correlations

ExxonMobil Bighorn Basin Trip Attendee
Lecture, field, and lab work focusing on basin analysis, sequence stratigraphy, sedimentology, and petroleum systems

I was born and raised in western Michigan and became seriously interested in geology in my junior year of high school. I attended Grand Valley State University, graduating with a B.S. in 2012. Completing an undergraduate research project drew me toward earning my Ph.D. and I started graduate school in the fall of 2012. My wife and I married in December of that year and, after completing her degree, she joined me in Waco.

Currently I am working in the San Juan Basin on reconstructing early Paleocene climatic conditions and landscape evolution to provide context to coincident mammalian evolution. In the summer of 2014, I gained my first industry experience through an internship at Anadarko; an opportunity that reinforced the goal to use my skillset in an industry setting. Away from academia, I enjoy reading, camping, hiking, and traveling.
Andrew Flynn  
Ph.D. Candidate  

Focus  
Paleobotany, Paleoclimate, Paleoecology, Terrestrial Sedimentology  

Dissertation  
“Early Paleocene Fossil Floras and Climate of the San Juan Basin, New Mexico, USA”  

Advisor  
Dr. Daniel Peppe  

Graduation  
May, 2018  

Contact  
Andrew_Flynn@baylor.edu  

Work Experience and Skills  
Graduate Research Assistant, Baylor University  
Terrestrial paleoclimate and paleoecology modeling using fossil plants, terrestrial sedimentology and stratigraphy  

Undergraduate Research Assistant, Miami University  
igneous flow stratigraphy, paleomagnetic dating, radiogenic isotope analysis, bulk geochemistry  

Market Researcher, Phillip Service Industries  
Conducted research into new sales leads, contacted potential clients, arranged new service accounts  

I attended Miami University in Oxford, Ohio where I graduated with a B.S. in Geology in 2011. While at Miami, I also completed an undergraduate thesis entitled “Responses of Early Eocene Insect Herbivore Communities to Changing Climate in the Big Horn Basin, Wyoming, USA.” After graduating undergrad, I began working as a market researcher before deciding to pursue my M.S. at Baylor University in the Fall of 2013. In the Fall of 2014, I decided to change my degree path at Baylor, and I am now in the process of attaining my Ph.D. During my time at Baylor, I have been an active member of the Baylor Geological Society and have engaged in numerous academic, service, and social activities. Away from geology, I am a passionate hockey fan, car aficionado, and greatly enjoy the outdoors.

R. Hunter Harlow  
Ph.D. Candidate  

Focus  
Stratigraphy, Terrestrial Sedimentology, Paleoclimate, Applied Petroleum Studies  

Dissertation  
“Depositional and Climatic Evolution of the Late Triassic Chinle Basin, Southwestern United States”  

Advisor: Dr. Stacy Atchley  

Graduation: May, 2017  

Contact: Hunter_Harlow@baylor.edu  

Work Experience and Skills  
Consultant, GLJ Petroleum  
Carbonate core description, petrophysical interpretation, reservoir analysis, flow unit delineation  

Imperial Barrell Award, KU  
Clastic petrophysical and seismic interpretation, petrophysical petroleum analysis, petroleum system characterization, Petrel, Kingdom Suite, Hampson-Russell  

Kansas Geological Survey, GRA  
Sed/Strat logging of clastic drill cores, stable isotopic analysis, bulk geochemistry, petrophysics, Petrel  

Intern, Marathon Oil Company  
High-resolution Woodford, Bakken, and Marcellus core description, detailed ichnology, petrophysical characterization and geochemical modeling, Petrel  

I was born and raised in North Dallas, and I grew up experiencing the oil and gas business at a young age with my father, a petroleum landman. These experiences led me to pursue a geology degree from Baylor University, where I graduated with a B.S. in 2010. I got married that summer, and my wife and I left Texas to both work on our Master’s degrees at the University of Kansas. I also worked in the Stratigraphic Research Division at the Kansas Geological Survey where I collected and interpreted data for my thesis: “Depositional and Paleoclimatic Evolution of the Cenozoic High Plains Succession from Core: Haskell Co., Kansas.” I received my M.S. in 2013 and headed back to Baylor University for my Ph.D. as a Graduate School Fellow. While at Baylor, I have served as the Baylor Geological Society Student AAPG Chapter President and planned and led many academic, service, and social events. Outside of geology, I am an avid outdoorsman and wake surfer, and I enjoy photography and traveling.
Cong Jin
Ph.D. Candidate

Focus
Sandstone Diagenesis and Petrology, Stratigraphy, Fracture Characterization, Clay Minerals

Dissertation
“Late Triassic Paleoclimate Reconstructions Derived From Chinle Sandstones and Paleosols, Petrified Forest National Park, Arizona”

Advisor: Dr. Steve Dworkin
Graduation: May, 2017
Contact: Cong_Jin@baylor.edu

Work Experience and Skills
Research Assistant
University of Tulsa, OK
Rock samples selection, preparation, polish, photograph, microscopic and FTIR analysis

Geological Consultant, Madagascar International Oil Corp., China
Explanation suggestion, subsurface mapping, petrophysical and seismic interpretation, Petroleum system analysis, Petrel, Petrel

Geological Consultant, Shengli Oil Field Company, China
Reservoir development suggestion, subsurface mapping, petrophysical and seismic interpretation, Petroleum systems, Petrel, Petrel

I y diverse experiences have made me a special one for the petroleum industry. I am a geology guy with a strong understanding of the field of engineering. I am highly competent regarding technical knowledge, and I also have an interest in applied petroleum studies. All of these elements have given me a very broad outlook and have combined to give me knowledge on a wide range of topics. I received my B.E degree at the China University of China. At the same time I was also the main research assistant for two oil company research projects. I graduated from University of Tulsa with a M.S. degree, and the thesis was natural fracture characterizations in the Woodford Shale, Oklahoma. In 2013, I came to Baylor University for my Ph.D degree and focus on studies of paleoclimate by using sandstone petrology, paleosol geochemistry and clay mineral stable isotopes. More than what I have studies in three colleges, it has been this unique blend of experiences that have shaped me into a person with a original point of view, a broader perspective on life, and the desire to reach for higher goals.

Caitlin Leslie
Ph.D. Candidate

Focus
Terrestrial Sedimentology, Stratigraphy, Paleoclimate, Applied Petroleum Studies

Dissertation
“Stratigraphic and pedologic reconstruction of latest Cretaceous and Paleocene environments and climates, southwestern USA”

Advisors
Dr. Stacy Atchley, Dr. Daniel Peppe
Graduation: August, 2017
Contact: Caitlin_Leslie@baylor.edu

Work Experience and Skills
Consultant, GLJ Petroleum
Carbonate core description, petrophysical interpretation, reservoir quality analysis and characterization, flow unit delineation

GSA/ExxonMobil Bighorn Basin Award
Field descriptions, sequence stratigraphic interpretation, basin analysis, and petroleum system characterization

Research Assistant, Baylor Univ.
Geochronologic reconstruction of terrestrial deposits, paleomagnetic analysis, 40Ar/39Ar absolute age dating

NASA Michigan Space Grant Fellow
Geomorphic and structural evolution, paleoclimate reconstruction, thermochronology, provenance analysis of Absheron Peninsula, Azerbaijan anticlines

I was born in Michigan and attended Grand Valley State University in west Michigan for my undergraduate education. An environmental science class in high school sparked my interest in the earth sciences and I decided to major in geology at Grand Valley, where I received my B.S. with honors in 2013. After graduating, I moved to Waco to work on my Ph.D. While at Baylor, I have had the opportunity to work as a consultant on an applied heavy-oil recovery project in the Grosmont and Ireton Formations of northeastern Alberta. Our completed stratigraphic and reservoir quality assessment will be presented at the SEPM Mountjoy Conference “Advances in Characterization and Modeling of Complex Carbonate Reservoirs” in August. At Baylor I have also served as the Baylor Geological Society AAGP Student Chapter Vice President where I helped plan and participated in various academic, social, and volunteer activities. In my spare time, I enjoy exploring Waco and the surrounding areas.
Hannah Mejia  
Ph.D. Candidate

**Focus**
Seismology, Seismic Data Analysis, Geophysics

**Dissertation**
"Lithospheric Structure of Hispaniola Inferred from Broadband Seismic Data and Tectonic Implications"

**Advisor**
Dr. Jay Pulliam

**Graduation**
May, 2018

**Contact**
Hannah_Mejia@baylor.edu

**Work Experience and Skills**

**Petroleum Geology Course, CPP**  
Course taught by retired Chevron geophysicist; learned about all aspects of petroleum systems

**AAGP Short Course, BU**  
"Using Seismic Data: From Acreage Capture to a Wildcat Well" by Dr. Fred Schroder

In July 2014, my husband, our dog and I made the long multi-day journey from California, so I could attend Baylor University for my Ph.D. concentrating on earthquakes in the Dominican Republic. One of the most fascinating portions of our trip was driving through Midland/Odessa and seeing the oil fields. I attained by B.S. (2012) and M.S. (2014), both in Geology concentrating on Geophysics and Seismology, from Cal Poly Pomona (CPP). While at CPP, I acted as President for the Society of Exploration Geophysicist student chapter; helping plan various events and activities to encourage interest in Geophysics.

Gina Pope  
Ph.D. Candidate

**Focus**
Exploration Geophysics, Fracture Analysis, Oil Exploration, GPR

**Dissertation**
"Fracture analysis using radar and resistivity surveying"

**Advisor**
Dr. John Dunbar

**Graduation**
May, 2017

**Contact**
Gina_Pope@baylor.edu

**Work Experience and Skills**

**Undergraduate Thesis**
Fracture orientation analysis of the Chaumont Limestone, ground penetrating radar, Pictometry, ArcMap

**Research Assistant, Department of the Earth Sciences, SUNY Brockport**  
Soil sample collection, portable XRF, selective sequential extraction, ICP-AES

**Senior Teaching Assistant, Department of the Earth Sciences, SUNY Brockport**

I was born in Rochester, NY and earned my undergraduate degree in geology at State University of New York at Brockport. I also earned a minor in mathematics. While earning my degree I was a teaching assistant for the physical geology lab for three years. During the third year I became the senior teaching assistant where I taught one of the lab sections and advised other assistants. I was also the president of the Eta Chi chapter of Sigma Gamma Epsilon, an earth science honor society. I completed my first research project sophomore year and published it the following year.

My undergraduate thesis involved using ground penetrating radar to analyze the fracture pattern of the Chaumont Limestone. I also worked for the student health center when my role was to plan and facilitate programs for students. I am currently pursuing my M.S at Baylor. In general, I enjoy hiking, traveling, and reading.
### Tian Xu
**Ph.D. Candidate**

**Focus**
Exploration geophysics, Near-Surface geophysics

**Dissertation**
"Application of 3D and Time-lapse Electrical Resistivity Imaging to Environmental and Hydrological Problems"

**Advisor**
Dr. John Dunbar

**Graduation**
December, 2015

**Contact**
Tian_Xu@baylor.edu

**Work Experience and Skills**

**Geophysics R&D Intern, Halliburton**
Developing algorithm and code to detect fracture and elastic anisotropy by multi-azimuth seismology; seismic data processing; AVO analysis; Landmark DecisionSpace, Well Seismic Fusion

**DOE Gas Hydrate Project**
Marine seismic survey, seismic interpretation, AVO analysis, Marine DCR, Kingdom Suite

I graduated from University of Houston with a B.S in 2010, with a geophysics major and math minor. I am currently a graduating Ph.D. candidate at the Baylor University, focusing on exploration geophysics and near-surface geophysics. My graduate work includes investigating the distribution of gas hydrate on the Gulf of Mexico, numerical modeling the subsurface cracks/fracture using direct current DCR method, and detect seismic azimuthal anisotropy by using multi-azimuth seismic data. I have also acquired computer skills with extensive knowledge of programing, data analysis and seismic interpretation from the industry. As a Geophysics R&D intern in Halliburton on 2014, I developed algorithms and code to detect seismic azimuthal anisotropy by using amplitude variation with the angle and azimuth (AVAZ) inversion method and travel-time variation method. In my free time, I enjoy traveling and exploring new cultures in different places.

### Zach Valdez
**Ph.D. Candidate**

**Focus**
Geochemistry, Reservoir Performance, Geologic Mapping

**Dissertation**
"Management Effects on Switchgrass Soil C and N Dynamics"

**Advisor:** Dr. Bill Hockaday

**Graduation:** August, 2016

**Contact:** Zack_Valdez@baylor.edu

**Work Experience and Skills**

**Intern, BHP Billiton**
Summer 2015

**Intern, Covey Park Energy**
Correlating and mapping Cotton Valley Sands in Amoruso Field; recreate depositional environment with hand contoured isopach map

**Intern, Pioneer Natural Resources**
Identify reservoir attributes in Barnett Shale to enhance horizontal production; core analysis, 3D Microseismic, Spotfire Neural Network

**Chemical Engineer**
Southwest Research Institute
Chemical partitioning and thermodynamic transfer methods for heavy crude cracking and distillation unit

I originally attended St. Mary’s university under a soccer scholarship, yet found myself applying my aptitude in mathematics towards a double B.S. degree in Engineering and Physics. In undergrad I was exposed to multiple STEM field research opportunities (liquid nitrogen vehicles, waste management optimization, and atmospheric chemistry) as a McNair scholar and took a job with a research institute after graduation. Baylor offered an interdisciplinary program that allowed me to incorporate my physical sciences background into the Earth Sciences discipline. While at Baylor I have acquired funding as a National Science Fellow and through the Glasscock Energy Scholarship. I won first place in the Elevator Speech Contest at a 2014 national conference in Long Beach and was a recipient of the 2014 Future Leaders in Science award where I was flown to Washington DC to participate in the Congressional Visits Day. I am currently the coach/captain of the Baylor club soccer team and when I have free time I enjoy backcountry camping and mountain biking.