Jared R. Olyphant

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Summary of Qualifications

- Experienced geophysical interpreter with 5 years of PhD-level research experience and 2 summer internships at Supermajor oil companies
- Proven ability to integrate multiple fields of geophysical analyses, including seismic interpretation, rock physics, rock properties, gravity, magnetic, and subsidence modeling
- Strong quantitative modeling and analysis skills in programming languages such as MATLAB and Python
- Four years of frontier exploration research experience using industry-level (*Hyperdynamics Corporation*) 2-D and 3-D seismic data located offshore Guinea, West Africa
- Demonstrable communication skills including 2 first-author publications in peer-reviewed journals and 7 oral presentations in academic and industry settings

Work Experience

Geophysics Intern – *Chevron* May – August, 2014

- **Team:** Reservoir Properties from Seismic
- **Focus:** Development of numerical code that performed rock-property analyses for exploration basins through computation of expected seismic half-space responses based on proposed V_p-V_s and density-porosity relationships.

Geophysics Intern – *BP* May – August, 2013

- **Team:** Reservoir Development for Atlantis Deepwater Gulf of Mexico
- **Focus:** Rock-properties analysis of the deepwater Atlantis field in order to constrain placement of planned water-injector wells.

Research Experience

Graduate Research Associate 2012 – Present
Department of Geosciences – University of Arizona, Tucson, AZ

- Characterized the tectonic evolution of the rifted passive margin located offshore Guinea, West Africa through interpretation of 2-D and 3-D seismic data
- Quantified the subsidence of the Guinea Plateau Margin through geologic time
- Computed gravity profiles using satellite, seismic, and well data as constraints
- Calculated seismic attributes from 3-D seismic data to improve interpretations
- Led teleconference meetings with industry partners to communicate ideas and results
- Collected shallow-seismic refraction data for an interdisciplinary (geomorphology-geophysics) research project

- Processed seismic refraction data and produced seismic tomography velocity profiles
- Created a multivariable regression model to predict weathered-unit thicknesses as a function of topographic attributes
- Mentored incoming graduate students on proprietary software used within the seismic reflection laboratory

Education

University of Arizona, Tucson, AZ: **Ph.D**, Geophysics 2012 – 2017

Indiana University, Bloomington, IN: **B.S.**, Geological Sciences, *Minor in Mathematics*, *Best in class (Faculty Senior Student Award)* 2007 – 2012

Selected Teaching Experience

Teaching Assistant
Department of Geosciences – University of Arizona, Tucson, AZ

- Structural Geology 2016, 2015
  - Led weekly laboratory section including weekday and weekend field trips, grading, office hours, and exam proctoring

Selected Academic and Professional Honors

- ChevronTexaco Geology Fellowship 2016, 2015
- SEG Foundation Student Scholarship Award 2014
- BP Technofest 3rd place poster presentation in Technical Excellence (Houston) 2013
- Faculty Scholarship Senior Student Award (Indiana University) 2012

Software Proficiencies

- IHS Kingdom Suite, Landmark, Geoprobe
- MATLAB, Python, ArcGIS, GMT, Adobe Illustrator, Microsoft Office
- Linux and Windows

Peer-reviewed Publications

- Olyphant, JR, RA Johnson, AN Hughes. 2017. Evolution of the Southern Guinea Plateau: Implications on Guinea-Demerara Plateau formation using insights from seismic, subsidence, and gravity data. ***Tectonophysics*** (*under review*).
- Olyphant, JR, JD Pelletier, RA Johnson. 2016. Topographic correlations with soil and regolith thickness from shallow-seismic refraction constraints across upland hillslopes in the Valles Caldera, New Mexico. ***Earth Surface Processes and Landforms***. 41.12: 1684, doi: 10.1002/esp.3941