ALEX HAKSO

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EDUCATION

M.Sc. Geophysics ; PhD Geophysics: Stanford University **June 2015 ; October 2017**
GPA: 3.75 ; 3.82

B.S. Physics **April 2012**
Pepperdine University **Malibu, CA**
GPA: 3.6

SELECTED PROFESSIONAL EXPERIENCE

Earth Science Intern, Energy Technology **June - September 2015 & 2016**
Chevron **Houston, TX**
Supervisor: Kaihong Wei (2015); Dimitri Bevc (2016)

- Pioneered first-of-its-kind experiment at Chevron, synthesizing disparate hydraulic fracturing monitoring methods
- Collaborating closely with business and research units to generate value-driven results
- Delivered company-wide, global "tech talk," garnering significant attention from multiple business units
- Ran simulations on GPU clusters to evaluate feasibility of a novel field experiment

Research and Technology Intern, Unconventional Resources **June 2014 – September 2014**
Total Petrochemicals **Houston, TX**
Supervisor: Jing Du

- Developed robust, interactive seg2 reader in Fortran
- Developed code to determine downhole geophone azimuths using perforation shots

Computational Geosciences Intern **June 2013 – September 2013**
Lawrence Livermore National Laboratory **Livermore, CA**
Supervisor: Benjamin Liu

- Conducted analytical verification studies of GEOS hydraulic fracturing simulator
- Ran and analyzed parametric study for a variety of fracturing parameters

SELECTED RESEARCH EXPERIENCE

Lead Author/Presenter **December 2015**
Title: High Density Seismic Interferometry at the El Jefe Geyser, Chile
Co-authors: Jesse Lawrence, Kevin Seats
Presented: American Geophysical Union Annual Meeting (San Francisco, CA)

Lead Author/Presenter **October 2015**
Title: Utilization of Microseismic Multiplets to Detect Velocity Changes During Hydraulic Fracturing
Co-authors: Mark Zoback, Jing Du
Presented: Society of Exploration Geophysics Annual Meeting (New Orleans, LA)

Co-author **June – September 2013**
Title: The Effects of Rock Toughness on Growth Competition Between Closely Spaced Hydraulic Fractures
Collaborators: Pengcheng Fu, Scott Johnson, Randy Settgast, Rick Ryerson
Accepted: SPE Hydraulic Fracturing Technology Conference 2014 (The Woodlands, TX)

RELEVANT COURSEWORK

Reservoir Geomechanics
Seismic Processing
Seismology
Sedimentology
Multiphase Flow
Thermodynamics
Computational Physics
Reflection Seismology
Rock Physics
Reservoir Simulation
Unconventional Reservoir Geomechanics
Mathematical Methods of Physics
Mechanics
Tectonophysics
Physical Geology
Rock Fracture Mechanics (audit)

SELECTED HONORS AND LEADERSHIP EXPERIENCE

2010-current
Volunteer Team Leader in Young Life, a youth-mentoring organization, 5-7 hours a week

- Developed and coordinated a team of adult leaders through training, administrative support, and event planning

August 2011-April 2012
Vice President of Physics Club at Pepperdine University

- Directed club promotion
- Involved in organizing solar telescope program, trip to global satellite network and various other activities
- Organization grew several hundred percent under leadership

2008-2012
Pepperdine Regent's Scholarship (Highest academic award)
Faculty-Staff Scholarship

COMPUTER SKILLS

Expert with Linux/Unix/Windows/Mac
Expert with Fortran
Expert with MatLab
Expert with Microsoft Office Suite
Proficient with Python
Proficient with microseismic software Microseisgram
Proficient with Mathematica
Proficient with C++
Some experience with IDL

AFFILIATIONS

Stanford Rock Physics and Borehole Geophysics Project
Stress and Crustal Mechanics Research Group
Stanford Center for Induced and Triggered Seismicity
American Geophysical Union
Society of Exploration Geophysicists
Society of Petroleum Engineers