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University of Calgary	Ph.D.	2009/09-2015/02	Geophysics
University of Calgary	MEng.	2004/05-2006/05	Petroleum Engineering
Petroleum University of Technology	B.Sc.	1999/09-2003/09	Petroleum Engineering

Employment and positions	**Location**	**Dates**
Research Scientist	*New Mexico Tech, USA* *Performing research and code development related to integrated studies using rock physics modeling, geomechanical modeling, and reservoir engineering data, proposal writing activities, submitting manuscripts, acting as PRRC students committee member.*	2020/08-Current
Postdoctoral fellow	*University of Calgary- Canada* *I was an R&D Geophysicists at Absolute Imaging Inc and Postdoctoral researcher in the Department of Mathematics and Statistics at the University of Calgary as a joint funding program.*	*2020/02-2020/08*
R&D	*Absolute Imaging Inc- Calgary, Canada* *I developed the optimization of GPU/CPU and parallel supercomputing for wave equation solvers, Full Waveform Inversion (FWI) and Reverse Time Migration (FWI/RTM).*	*2019/02-2020/08*
R&D	*Ashaw Energy - Calgary, Canada.* *I developed software algorithms in areas of geomechanical and fluid flow simulation in vertical and horizontal wells.*	*2018-2020/08*
Postdoctoral fellow	*University of Calgary, CREWES consortium- Calgary, Alberta*	*2017-2018*
Research consultant	*Suncor Energy, Unconventional resources, Calgary, Alberta* *Developed software for subsurface monitoring using wellbore sensors.*	*2015-2017*
Research intern	*Nexen Energy, Shale/Gas department, Calgary, Alberta* *Developed software for geomechanical simulation of hydraulic fracturing and full waveform inversion by Kirchhoff approximation.*	*2012-2015*

Publications:

1. **Khaniani** H., and Bancroft J. C., and von Lunen E., 2016, Iterative multiparameter waveform inversion of precritical reflection data using Prestack time Kirchhoff approximation, **Geophysics**, Vol. 81.
2. Fernández-Muñiz Z., **Khaniani** H., Fernández-Martínez J. L., Data kit inversion and uncertainty analysis, (**Journal of Applied Geophysics**, 2018)
3. **Khaniani** H., Bancroft J. C., and Margrave G. F., 2012, Full waveform inversion algorithm using Common Scatter Point (CSP) gathers, SEG expanded abstract.
4. **Khaniani** H., Bancroft J. C., 2011, Enhancing the inversion of migration velocity by implementation of tilt effects on CSP data, SEG expanded abstract.
5. **H Khaniani**, JC Bancroft, E von Lunen., 2015., Application of Kirchhoff approximation in iterative multiparameter elastic waveform inversion., CSEG expanded abstract.
6. Nowroozi D., and Lawton D., and **Khaniani, H..**, 2016, Seismic modelling and imaging for a shallow CO2 injection project, SEG expanded abstract.
7. Nowroozi D., and Lawton D., and **Khaniani H.**, 2016, A framework for full waveform modeling and imaging for CO2 injection at the FRS project, CSEG expanded abstract.
8. S Moradi, **H Khaniani**, KA Innanen, 2014, Numerical analysis of scattering in a viscoelastic medium, CREWES Research Report.
9. Boroumand N., and **Khaniani H**., 2013, Application of 2D cross correlation and Radon transform for analysis of double couple microseismic source, CSEG expanded abstract.
10. **H Khaniani**, JC Bancroft, E von Lunen, 2012, Simultaneous PP and PS waveform inversion algorithm using Pre-Stack time imaging method, CSEG expanded abstract.
11. **H Khaniani**, GF Margrave, JC Bancroft, 2010, Comparison of three Kirchhoff integral formulas for true amplitude inversion, CREWES Research Report.
12. **H Khaniani**, JC Bancroft, 2011, Determination of velocity smoothing operator for Prestack Kirchhoff depth migration using Common Scatter Point gathers, CSEG expanded abstract.
13. MR Wilson, **H Khaniani**, JC Bancroft, 2012, Analytic and numerical considerations for velocity grid smoothing in ray-based modelling and migration, CSEG expanded abstract.