

# Ali Siahkoohi

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## EDUCATION

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### Georgia Institute of Technology

*Doctor of Philosophy in Computational Science and Engineering;*

Advisor: Felix J. Herrmann – GPA: 4.00/4.00 (Up to now)

Atlanta, GA, USA

Sep. 2016 – Aug. 2021 (expected)

### University of Tehran

*Master of Science in Geophysics;*

Advisor: Ali Gholami – GPA: 3.88/4.00 (Ranked 1st)

Tehran, Iran

Sep. 2013 – Mar. 2016

### Sharif University of Technology

*Bachelor of Science in Electrical Engineering;*

GPA: 3.77/4.00 (Related courses)

Tehran, Iran

Sep. 2008 – Aug. 2013

## RESEARCH INTERESTS

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Deep Learning, Signal Processing, Imaging, Inverse Problems, Numerical Linear Algebra, Optimization

## PROGRAMMING SKILLS

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**Languages:** Python, C, Julia, MATLAB

**Machine Learning Library:** TensorFlow

**Cloud Services Platform:** AWS

**Message Passing System:** MPI

**Version Control System:** Git, SVN

**Document Preparation System:** LaTeX, Markdown

## TEACHING EXPERIENCE

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### Georgia Institute of Technology

Teaching Assistant for Numerical Analysis I, Fall 2018

Atlanta, GA, USA

### Sharif University of Technology

Teaching Assistant for Signals and Systems, Spring 2011

Teaching Assistant for Digital Signal Processing, Spring 2011

Teaching Assistant for Linear Algebra, Fall 2010

Laboratory Assistant for Principles of Electrical Engineering, Fall 2010

Tehran, Iran

## PUBLICATIONS

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- [1] Gabrio Rizzuti, Ali Siahkoohi, and Felix J. Herrmann. “Learned iterative solvers for the Helmholtz equation”. Submitted to EAGE on January 15, 2019.
- [2] Felix J. Herrmann, Gerard J. Gorman, Jan Hückelheim, et al. “The power of abstraction in Computational Exploration Seismology”. In: *Smoky Mountains Computational Sciences and Engineering Conference*. Aug. 2018.
- [3] Ali Siahkoohi, Mathias Louboutin, Rajiv Kumar, et al. “Deep-convolutional neural networks in prestack seismic: Two exploratory examples”. In: *SEG Technical Program Expanded Abstracts 2018*. Oct. 2018, pp. 2196–2200. DOI: 10.1190/segam2018-2998599.1.
- [4] Ali Siahkoohi, Rajiv Kumar, and Felix J. Herrmann. “Seismic Data Reconstruction with Generative Adversarial Networks”. In: *80th EAGE Conference and Exhibition 2018*. June 2018. DOI: 10.3997/2214-4609.201801393.
- [5] Ali Siahkoohi and Ali Gholami. “Sparsity Promoting Least Squares Migration for Laterally Inhomogeneous Media”. In: *7th EAGE Saint Petersburg International Conference and Exhibition*. Apr. 2016. DOI: 10.3997/2214-4609.201600223.
- [6] Mohammad Sadegh Ebrahimi, Mohammad Hossein Daraei, Jamshid Rezaei, et al. “A Novel Utilization of Wireless Sensor Networks as Data Acquisition System in Smart Grids”. In: *Materials Science and Information Technology*. Vol. 433. Advanced Materials Research. Trans Tech Publications, Jan. 2012, pp. 6725–6730. DOI: 10.4028/www.scientific.net/AMR.433-440.6725.
- [7] Amir Najafi, Ali Siahkoohi, and Mohammad B Shamsollahi. “A content-based digital image watermarking algorithm robust against JPEG compression”. In: *2011 IEEE International Symposium on Signal Processing and Information Technology (ISSPIT)*. IEEE. Feb. 2011, pp. 432–437. DOI: 10.1109/ISSPIT.2011.6151601.