

# Arushi Saxena

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## EDUCATION

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### Center for Earthquake Research and Information

University of Memphis, TN

PhD in Geophysics

Aug. 2015 – May 2020

Advisor: Dr. Eunseo Choi

Thesis Title: *Investigating intraplate seismicity in the Central and Eastern US: Linking observations and numerical models*

### Indian Institute of Technology

Roorkee, India

Integrated Master and Bachelor of Technology in Geophysics

Aug. 2009 – Aug. 2014

Advisor: Dr. Rambhatla G. Sastry

Thesis Title: *Non invasive hydraulic conductivity estimation using microgravity survey*

## PROFESSIONAL EXPERIENCE

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**Post-doctoral Associate** at University of Florida, USA

June, 2020 – Present

**Research Assistant** at University of Memphis, USA

Aug, 2015 – May, 2020

**Junior Geophysicist** at Sterling Oil and Gas, Nigeria

July, 2014 – May, 2015

## PUBLICATIONS

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- ★ **Saxena, A.**, Langston, C. A. (2021). Detecting lithospheric discontinuities beneath the Mississippi Embayment using S-wave receiver functions. *Geophys. J. Int.*, **228(2)**, 744-754.
- ★ **Saxena, A.**, Choi, E., Powell, C. A., Aslam, K. S. (2021). Seismicity in the central and southeastern United States due to upper mantle heterogeneities. *Geophys. J. Int.*, **225(3)**, 1624-1636.
- ★ Geng, Y., Powell, C. A., **Saxena, A.** (2020). Joint local and teleseismic tomography in the central United States: exploring the mantle below the upper Mississippi Embayment and the Illinois Basin. *J. of Geophys. Res.: Solid Earth*, **125(10)**

## RECENT CONFERENCE PRESENTATIONS

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- ★ Reproducing present-day plate motions in high-resolution global mantle flow models with plate boundaries , *AGU Fall Meeting, 2021*
- ★ Geodynamic modeling for stress and seismicity in the southern Korean Peninsula driven by lateral variations of lithospheric thickness and plate kinematics, *AGU Fall Meeting, 2020*
- ★ Detecting lithospheric discontinuities beneath the Mississippi Embayment using S wave receiver functions, *Eastern Section Seismological Society of America, 2019*
- ★ Evolution of lithospheric drip and its impact on the seismicity in the Central and Southeastern US, *AGU Fall Meeting, 2018*
- ★ Numerical modeling of slab-released Fluids in the New Madrid Seismic Zone, *AGU Fall Meeting, 2017*
- ★ GeoTrust Hub: A Platform For Sharing And Reproducing Geoscience Applications, *AGU Fall Meeting, 2017*

## INVITED TALKS

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- ★ **Investigating regional and global process through seismology and geodynamic models** at Departmental Seminar in University of Florida, US.
- ★ **Reproducing present-day plate motions in high-resolution global mantle flow models with plate boundaries** at Departmental Seminar in GFZ Postdam, Germany.

## AWARDS

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- ★ Part of a funded research grant entitled “Computational Infrastructure for Geodynamics - Community Code Scaling” 2020 – 2021
- ★ Eastern Section of Seismological Society of America travel grant awardee 2019
- ★ AGU Fall Meeting Student travel grant awardee 2017
- ★ Graduate Aptitude Test in Engineering Scholarship awardee Jun 2013 – Jun 2014
- ★ Summer Research Fellowship, Indian Academy of Sciences awardee May 2011 – July 2011

## EDUCATION AND OUTREACH

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- ★ **Blog editor** of geodynamics section in European Geophysical Union: Responsible for monthly blog-posts on topics ranging from Geodynamics 101 to news and views on Earth science.
- ★ Part of **Scientist in Every Florida School**: Gave presentations to Florida middle school students on plate tectonics, mantle convection, the rock cycle, and experience as an Earth scientist.