

## Yi Wang

Patent Agent

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Dr. Yi Wang is a seasoned patent agent with a strong academic background in seismology and geophysics, coupled with extensive industry practice in data science. Yi focuses on drafting and prosecuting patent applications in the areas of energy, AI & IoT, 3D-printing, telecom, robotics, software, electronics, automotive, healthcare, manufacturing, transportation and related technologies. His technical experience includes computer science, data science, supervised/unsupervised machine learning, deep learning, geophysics and geology.

Yi's industry experience allows him to recognize and bridge the gap between technical innovation and intellectual property protection with a focus on delivering high-value solutions meeting the needs of clients. Yi previously served as assistant chief developer, data scientist and staff geophysicist with several national or independent oil and gas companies, including CGG, ConocoPhillips, Sinopec, Seismic-PPS (NNPC-IDSL) and Geophysical Insights.

His work focuses on supervised/unsupervised machine learning, neural networks, artificial intelligence, encode-decoder architecture, computer vision, NLP, optimization, inversion, reservoir characterization, quantitative interpretation, imaging, seismic processing and signal processing.

Yi is a patent holder and has published papers in peer-reviewed scientific journals.

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### **Industries**

[Technology](#)

### **Practices**

[Intellectual Property](#)

[Patents](#)

## Credentials

### Education

- State University of New York at Stony Brook, Ph.D., Seismology, 2006
- State University of New York at Stony Brook, M.S., Seismology, 2004
- Peking University, B.S., Geophysics, 2001

### Bar Admissions

- U.S. Patent and Trademark Office

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## Resources

### USPTO Lights the Way for AI Inventions to Shine

Update

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## Publications & Speeches

- Co-author, "Fabric and Internal Architecture of Permian Basin Turbidites Indicated by Unsupervised Machine Learning Analysis of PP and SVP Images," *Interpretation*, November 2020.
- Co-author, "An Investigation of Acoustic Full Waveform Inversion Using Reflection Energy: A Case Study From the Ekofisk LoFS Ocean Bottom Dataset," *SEG*, 2013.
- Co-author, "The Ups and Downs of Ocean Bottom Seismic Processing: Applications of Wavefield Separation and Up-Down Deconvolution," *The Leading Edge*, October 2010.
- Co-author, "A New Approach to Remove the Water Column Effect From 4-D Ocean Bottom Data," *SEG*, 2010.
- Co-author, "Up-Down Deconvolution and Subsurface Structure: Theory, Limitations and Examples," *SEG*, 2010.
- Co-author, "Up-Down Deconvolution for Surface-related Multiple Attenuation of Ocean Bottom Data," *EAGE*, 2010.
- Co-author, "Surface-Related Multiple Attenuation of Multi-Component Data: An OBS Synthetic Example," *NPF Biannual Seminar*, 2010.
- Co-author, "Wide-Area Imaging From OBS Multiples," *Geophysics*, 2009.
- Co-author, "What Comes Up Must Have Gone Down: The Principle and Application of Up-Down Deconvolution for Multiple Attenuation of Ocean Bottom Data," *CSEG Recorder*, December 2009.

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- Co-author, "PZ Calibration in Shallow Waters: An OBS Case," *SEG*, 2008.
- Co-author, "PZ Calibration in Shallow Waters: An OBS Case," *EAGE*, 2008.
- Co-author, "Mirror Imaging of OBS data," *First Break*, 2007.
- Co-author, "Complex Anisotropy Near the Border of a Very Low Velocity Province at the Base of the Earth's Mantle," *J. Geophys. Res.*, 2007.
- Co-author, "Geometry and P and S Velocity Structures of the 'African Anomaly,'" *J. Geophys. Res.*, 2007.
- Co-author, "Mapping the Geometry and Geographic Distribution of a Very Low Velocity Province at the Base of the Earth's Mantle," *J. Geophys. Res.*, 2004.
- Co-author, "The Study of Site Effects and Q Values in Tangshan Area, China, Using the Moderate- and Small-Sized Earthquakes Waveform Records," *Chun-Tsung Scholar Articles*, 2000.