# Dong Zhou

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## Summary

A scientist and programmer. Looking for opportunities in applying machine learning for social good. Past experience includes image processing, mathematical modeling, computational mathematics/physics, stochastic process. Familiar with magnetic resonance imaging, quantum computing and biophysics.

#### SKILLS

Python, Matlab, C/C<sup>++</sup>, Linux shell scripts, d3.js, SQL Machine learning, Image processing, computational physics/mathematics Mathematical modeling, Optimization with regularization, Stochastic process

## EXPERIENCE

- Postdoc in radiology, Weill Medical College of Cornell University 2012–2016 Solved ill-posed inverse problems in medical imaging using Matlab, C and C<sup>++</sup>. Developed probes for transcranial magnetic stimulation.
- Postdoc in physics, Yale University 2011–2012 Simulated solid state quantum optics (circuit QED) systems using Python. Developed schemes for quantum control and quantum gate.
- Research assistant, University of Wisconsin-Madison 2007–2011 Studied quantum systems in the presence of classical noises using Matlab and C<sup>++</sup>. Developed scheme for quantum gate and quamtum control. Developed algorithm for graph isomorphism problem. Performed X-ray diffraction and synchrotron radiation experiments on nacre (mother of pearl) and other samples.

#### **EDUCATION**

• Ph.D in physics, University of Wisconsin-Madison (GPA 4.0)	2006-2011
• Graduate study in physics, University of Georgia-Athens (GPA 4.0)	2004 – 2006
• B.S. in physics, Honored Mixed Class, Zhejiang University, China (GPA 3.8)	2000-2004

### Honors and Awards

- International Society for Magnetic Resonance in Medicine (ISMRM) Merit Award, Magna Cum Laude, 2014
- International Student Academic Achievement Award, UW-Madison, 2011
- Ray and Anne Herb Award for Wisconsin Distinguished Graduate Fellowship, 2008
- Emanuel R. Piore Award for Highest Scorer on the Qualifier Exam, UW-Madison, 2007
- University Housing's Favorite Instructor Award for Fall 2006, UW-Madison, 2006
- Van Vleck Fellowship for Graduate Students in Physics, UW-Madison, 2006
- Honored Graduate of Zhejiang University, China, 2004

- Honorary Enrollment, Zhejiang University, China, 2000
- Tan Jiazhen (C. C. Tan) Scholarship for Outstanding High School Student in Biology, 1999
- $\bullet$  Kang Hui Scholarship for Highest Scorer in High School Entrace Exam, Hangzhou, China, 1996

## Publications and Services

Author for 27 journal articles and reviewer for 11 journals.