Dong Zhou

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nosarthur.github.io   US green card holder

Summary

A scientist and programmer. Interested in personal growth and social good. Familiar with magnetic resonance imaging, quantum computing, and biophysics.

Skills

Python, Go, C/C++, Matlab, Shell scripts, SQL, AWS, Polymer.js, D3.js, Vue.js
Computational physics/mathematics, Image processing, Machine learning
Mathematical modeling, Optimization with regularization, Stochastic processes

Experience

- Senior scientist, Schrödinger, Inc.   2016-2017

  Implement analysis for molecular dynamics trajectories using Python. Maintain scientific computing services using AWS, Go, Python, PostgreSQL, and Polymer.js.

- Postdoc in radiology, Weill Medical College of Cornell University   2012–2016

  Solved ill-posed inverse problems in medical imaging using Matlab, C and C++. Developed probes for transcranial magnetic stimulation, both in simulation using COMSOL multiphysics, and with hardware.

- 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++. Developed scheme for quantum gate and quantum 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
- Kang Hui Scholarship for Highest Scorer in High School Entrance Exam, Hangzhou, China, 1996

PATENTS

1. *Magnetic resonance imaging systems and methods for optimized parallel receive, excite, and shim (oPRES)*
   Hui Han, Yi Wang, John Stager, Junghun Cho, and **Dong Zhou**, pending

PUBLICATIONS AND SERVICES

Author of over 30 journal articles and reviewer for 11 journals.