Christopher A. Wong

CONTACT

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SUMMARY

I am an applied mathematician with expertise in numerical analysis and scientific computing. In particular, I apply rigorous mathematics to computationally model physical phenomena for solving challenging problems in science and engineering. I have a passion for pushing the boundaries of the computational sciences, drawing from the latest advancements in mathematical research, not only in applied fields like scientific computing and machine learning, but also in theoretical fields like PDE and harmonic analysis.

EDUCATION

University of California, Berkeley

Ph.D., Applied Mathematics   May 2016
Adviser: John A. Strain

California Institute of Technology

B.S. with Honor, Applied and Computational Mathematics   June 2011
GPA: 4.0

EXPERIENCE

TSMC Technology, Inc.

Principal Engineer   2020 – Present

Geo-Mathematical Imaging Group, Rice University

Postdoctoral Research Associate   2016 – 2019
Supervisor: Maarten V. de Hoop

Department of Mathematics, UC Berkeley

Graduate Student Researcher   2011 – 2016
Adviser: John A. Strain

SKILLS

- Expertise in numerical analysis and scientific computing
- Broad knowledge of applied math, physics, machine learning, optimization
- Proficiency in Fortran, C/C++, CUDA, Matlab
- Familiarity with Python, TensorFlow
- Strong oral communication and technical writing skills

PAPERS

Matti Lassas, Maarten V. de Hoop, and Christopher A. Wong, *Generalization and regularization in deep learning for nonlinear inverse problems*, NeurIPS 2018 Workshop on Integration of Deep Learning Theories, 2018

Peter Caday, Matti Lassas, Maarten V. de Hoop, and Christopher A. Wong, *Deep neural networks learning to solve nonlinear inverse problems for the wave equation*, 2018

Christopher A. Wong, *Bilinear quadratures for inner products*, SIAM Journal on Scientific Computing **38** (2016), no. 4, A2382–A2404