

# Christopher A. Wong

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CONTACT	E-mail: <a href="mailto:cawong89@gmail.com">cawong89@gmail.com</a>
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	<b>University of California, Berkeley</b> Ph.D., Applied Mathematics <span style="float: right;">May 2016</span> Adviser: John A. Strain  <b>California Institute of Technology</b> B.S. with Honor, Applied and Computational Mathematics <span style="float: right;">June 2011</span> GPA: 4.0
EXPERIENCE	<b>TSMC Technology, Inc.</b> Principal Engineer <span style="float: right;">2020 – Present</span>  <b>Geo-Mathematical Imaging Group, Rice University</b> Postdoctoral Research Associate <span style="float: right;">2016 – 2019</span> Supervisor: Maarten V. de Hoop  <b>Department of Mathematics, UC Berkeley</b> Graduate Student Researcher <span style="float: right;">2011 – 2016</span> Adviser: John A. Strain
SKILLS	<ul style="list-style-type: none"><li>• Expertise in numerical analysis and scientific computing</li><li>• Broad knowledge of applied math, physics, machine learning, optimization</li><li>• Proficiency in Fortran, C/C++, CUDA, Matlab</li><li>• Familiarity with Python, TensorFlow</li><li>• Strong oral communication and technical writing skills</li></ul>
PAPERS	Maarten V. de Hoop, Matti Lassas, and Christopher A. Wong, <i>Deep learning architectures for nonlinear operator functions and nonlinear inverse problems</i> , Mathematical Statistics and Learning <b>4</b> (2022), 1–86  Maarten V. de Hoop, Matti Lassas, and Christopher A. Wong, <i>Generalization and regularization in deep learning for nonlinear inverse problems</i> , NeurIPS 2018 Workshop on Integration of Deep Learning Theories, 2018  Peter Caday, Maarten V. de Hoop, Matti Lassas, , and Christopher A. Wong, <i>Deep neural networks learning to solve nonlinear inverse problems for the wave equation</i> , 2018

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