## Daniel Hellfeld, Ph.D.

CONTACT	Lawrence Berkeley National Laboratory 1 Cyclotron Rd. (B50C - 3315) Berkeley, CA 94720	1.949.680.9345dhellfeld@lbl.gov   dhellfeld@gmail.com dhellfeld.github.io   linkedin.com/in/dhellfeld
SUMMARY	Applied research scientist leveraging computer vision and machine learning techniques to solve complex inversion problems. 5+ years experience in developing, testing and deploying software for anomaly detection, image reconstruction and real-time 3D mapping.	
EDUCATION	Doctor of Philosophy (Ph.D.), Nuclear Engine University of California, Berkeley  • Thesis: "Free-moving Omnidirectional 3D Game	Berkeley, CA
	Master of Science (M.S.), Nuclear Engineering Texas A&M University  Thesis: "Feasibility of Remote Nuclear Reactor A Scattering in the WATer CHerenkov Monitor of	$College\ Station,\ TX$ Antineutrino Directionality via Elastic Electron
	Bachelor of Science (B.S.), Physics (3.89/4.0) University of California, Santa Barbara	Sep 2009 - Jun 2013 Santa Barbara, CA
RESEARCH EXPERIENCE		
	Research Fellow Nuclear Science and Security Consortium, UC Berkeley  Novel experimental demonstration of real-time omnidirectional 3D active coded mask imaging.  ○ Fusion of contextual sensors and computer vision with gamma-ray image reconstruction.	
	Physics Intern  Rare Event Detection Group, Lawrence Livermore  o Monte Carlo simulations and statistical data ar  o Studied the feasibility of remote nuclear reactors	nalysis for a proposed antineutrino detector.
TEACHING EXPERIENCE	Lecturer, NE 104, NE 107 Department of Nuclear Engineering, UC Berkeley	Jan - May / Sep - Nov 2018 Berkeley, CA
SCIENTIFIC COMPUTING SKILLS	Languages: Machine Learning: Build Systems: Operating Systems: Robotics: GPU Programming: CI/CD: Other:	Python, C++, bash PyTorch, TensorFlow make, CMake, ninja, catkin macOS, Linux, Windows ROS OpenCL, OpenGL, CUDA TravisCI, Docker git, LATEX, Geant4, ROOT
AWARDS	R&D 100 Award Winner, R&D World Magazin Best Paper Award, UC Berkeley NE Dept. Runner-up Student Paper Competition, IEEE Best Oral Presentation, University Program Re Best Poster Award, INMM Annual Meeting Highest Academic Honor Award, UC Santa B Highest Honors, UC Santa Barbara	Dec 2018 E NSS-MIC view Meeting  Dec 2017 Jun 2017 Jul 2015
REFERENCES	Available upon request.	