

Education	University of California, Davis 2012 → Present M.S. in Physics — Dec 2013 Ph.D in Physics — 2016, expected
	University of Miami , Coral Gables, FL 2008 → 2012 B.S. in Physics, Applied Mathematics. <i>Cum Laude</i>
Research	Department of Physics, University of California, Davis <i>Graduate Student Researcher</i> June 2013 → Present Advisor: Prof. John Rundle <ul style="list-style-type: none">• Lead programmer and technical lead on the NASA-funded Virtual Quake project, a high performance earthquake simulator used for seismic hazard assessment• Developing computational infrastructure for generating catalogs of observable seismic surface patterns as well as earthquake and tsunami scenario catalogs• Developing and implementing computational tools for simulation data analysis, diagnostic tools and visualization
	Department of Astronomy, California Institute of Technology , Pasadena, CA <i>Summer Undergraduate Research Fellow</i> Summer 2011 Advisor: Dr. Brendan Crill, NASA JPL <ul style="list-style-type: none">• Updated and expanded the data analysis pipeline for the Planck collaboration• Identified correlations between detector model parameters using the D.O.E.'s supercomputing center NERSC
	Department of Physics, University of Miami <i>Research Assistant</i> 2009 → 2012 Advisor: Prof. Kevin Huffenberger <ul style="list-style-type: none">• Reconstructed the optical properties of a Cosmic Microwave Background telescope (WMAP) from observational data; identified a selection bias in the WMAP point source catalog
Published Research	J. M. Wilson, M. R. Yoder, J. B. Rundle, D. L. Turcotte, and K. W. Schultz , <i>Spatial Evaluation and Verification of Earthquake Simulators</i> , Pure and Applied Geophysics, accepted (2016)
	K. W. Schultz , E. M. Heien, M. K. Sachs, J. M. Wilson, M. R. Yoder, J. B. Rundle, and D. L. Turcotte. <i>Virtual Quake User Manual, Version 2.1.2</i> . Computational Infrastructure for Geodynamics, Davis, California, USA, 2016. https://geodynamics.org/cig/software/vq/vq-manual.2.1.2.pdf
	K. W. Schultz , M. K. Sachs, E. M. Heien, M. R. Yoder, J. B. Rundle, D. L. Turcotte, and A. Donnellan, <i>Virtual Quake: Statistics, Co-Seismic Deformations and Gravity Changes for Driven Earthquake Fault Systems</i> , International Association of Geodesy Symposia, in press (2015), DOI: 10.1007/1345_2015_134
	M. R. Yoder, K. W. Schultz , E. M. Heien, J. B. Rundle, D. L. Turcotte, J. W. Parker and A. Donnellan. <i>The Virtual Quake earthquake simulator: A simulation based forecast of the El Mayor-Cucapah region and evidence of earthquake predictability</i> , Geophysical Journal International, 2015 203 (3): 1587-1604, DOI: 10.1093/gji/ggv320
	M. R. Yoder, K. W. Schultz , E. M. Heien, J. B. Rundle, D. L. Turcotte, J. W. Parker and A. Donnellan. <i>Forecasting earthquakes with the Virtual Quake simulator: Regional and fault-partitioned catalogs</i> , International Association of Geodesy Symposia, under review (2015)
	K.W. Schultz , M.K. Sachs, J.B. Rundle, D.L. Turcotte, <i>Simulating Gravity Changes in Topologically Realistic Driven Earthquake Fault Systems</i> , Pure and Applied Geophysics DOI: 10.1007/s00024-014-0926-4, in press (2014)
	K. W. Schultz and K. M. Huffenberger, <i>Stacking catalogue sources in WMAP data</i> . Monthly Notices of the Royal Astronomical Society, Volume 424, Issue 4, pp. 3028-3036 (2012)

Conferences & Talks	K. W. Schultz , M. K. Sachs, E. M. Heien, M.R. Yoder, J. B. Rundle, D. L. Turcotte, A. Donnellan. oral: <i>Scenario Earthquake and Tsunami Simulations for a Pacific Rim GNSS Tsunami Early Warning System: First Results</i> 9th Meeting of the APEC Cooperation for Earthquake Simulation, Chengdu, China . 2015	
	K. W. Schultz , M. K. Sachs, E. M. Heien, M.R. Yoder, J. B. Rundle, D. L. Turcotte, A. Donnellan. poster: <i>Virtual Quake: The Software Formerly Known as Virtual California</i> Seismological Society of America (SSA) Meeting 2015, Pasadena, CA. 2015	
	K. W. Schultz , M. K. Sachs, E. M. Heien, J. B. Rundle, J. Fernandez, D. L. Turcotte, A. Donnellan. talk: <i>Virtual Quake: Earthquake Statistics, Surface Deformation Patterns, Surface Gravity Changes and InSAR Interferograms for Arbitrary Fault Geometries (won an OSPA award)</i> , American Geophysical Union (AGU) Fall Meeting 2014, San Francisco, CA, 2014	
	K. W. Schultz , J. B. Rundle, M. K. Sachs, K. F. Tiampo, T. J. Hayes, J. Fernandez, D. L. Turcotte, A. Donnellan. talk: <i>Monitoring Major Fault Systems from Space: Modeling Implications for Dedicated Gravity Missions</i> . GENAH Conference. Matsushima, Japan . 2014	
	Multi-Hazards Summer School: 1 week workshop on disaster prediction, preparedness, and response hosted by IRIDeS at Tohoku University and by the Association of Pacific Rim Universities (APRU). Sendai, Japan . 2014	
Teaching & Tutoring	Teaching Assistant, Department of Physics, University of California, Davis	2012 → 2013
	Physics & Math tutor, Department of Biology, Barry University , Miami Shores, FL	2012
	Physics tutor, Department of Physics, University of Miami	2011 → 2012
Honors & Awards	UC Davis Graduate Student Travel Award (\$1000)	2015
	Winner of an Outstanding Student Paper Award in Natural Hazards	2014
	Awarded to top 3-5% of presenters in each section at the American Geophysical Union 2014 meeting	
	Member, Omicron Delta Kappa	2011
	One of the highest collegiate honors along with Phi Kappa Phi and Phi Beta Kappa	
	Isaac Bashevis Singer Scholarship	2008 → 2012
	Full academic scholarship to the University of Miami (UM), 30 annually.	
	Foote Fellow	2008 → 2012
	Highest academic honor at UM, fellows freely design their curriculum, 50 annually	
	NSF CSMS Scholarship	2010
	NSF Computer Science and Mathematics for Scientists, 5 annually at UM	
	Beyond the Book Scholarship	2010
Computing Skills	Supported summer research, UM College of Arts and Sciences, 12 annually	
	National Ocean Scholarship	2008 → 2010
Study Abroad	Awarded by the Consortium for Ocean Leadership, 4 in the U.S. annually	
	Languages: Python, C++, R, \LaTeX , Bash. Experience with: SQL, HTML, SWIG, Java Modules & Libraries: GitHub source control, Matplotlib, Numpy, Scipy	
Study Abroad	Summer 2009: ACC Summer Study Abroad in China and Vietnam.	
	Studied environmental science, policy, and toxicology at:	
	<ul style="list-style-type: none"> • South China Agricultural University, Guangzhou, China. • Yunnan University, Kunming, China. • Hanoi University of Mining and Geology, Hanoi, Vietnam. 	