

Ted Sanders

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OBJECTIVE

To create value through hard work, and to learn from new experiences and new connections

EDUCATION

PhD	Applied Physics	Stanford University		<i>enrolled</i>
MS	Applied Science & Technology	UC Berkeley	3.7/4.0	<i>2012</i>
BS, BA	Engineering Physics, Math-Economics	UC San Diego	3.8/4.0	<i>2010</i>

EXPERIENCE

Stanford University/UC Berkeley, Graduate Student Researcher *2010 - Present*
Synthesized complex-oxide crystals used to build a SketchFET, the world's first nanometer-scale, gigahertz-speed writeable transistor (for applications in high-speed molecular sensing)

Sempra Energy, SDG&E (#1 UtiliQ Ranking), Smart Grid Researcher *Summer 2009*
Led a team that authored a 136-page research report on the technical and financial challenges of integrating large amounts of distributed solar power into the grid

Nanoscale Characterization and Devices Lab, Calit2 Summer Scholar *Summer 2008*
Modeled electromagnetic absorption of nanowire and quantum-well solar cells capable of beating the Shockley-Queisser 34% efficiency limit

General Atomics – Electronic Systems Inc., Engineering Intern *Summer 2007*
Single-handedly built and programmed an automated capacitor test station that saved labor costs, sped up production, improved measurement accuracy, and provided data to engineers

VOLUNTEER

Writer for the science/humor podcast Goggles Optional (10,000+ downloads, iTunes featured)

Teacher for educational pilot of Foldscope (<\$1, 140x mag. microscope featured at TED in 2012)

Author and editor of numerous Wikipedia articles as part of WikiProject Physics

Co-founder of Materials Research Seminar Series at UC Berkeley

SKILLS

Laboratory: Microelectronic fabrication, low-noise electrical measurements, laser optics, complex oxide thin films, x-ray spectroscopy/diffraction, cryogenics, SQUID magnetometry, microscopy

Analytical: Probability & statistics, programming, machine learning, quantum physics, statistical mechanics, energy economics, circuit theory

AWARDS

NSF Graduate Fellow	1 st Place ECE Senior Design Project Presentation
Jacobs Scholar (full ride to UC San Diego)	1 st Place Cal IEEE Computer Security Challenge
Gordon Scholar (for engineering leadership)	1 st Place IEEE SW Student Ethics Competition
Regents Scholar (for academic excellence)	1 st Place SciCast Technology Forecasting Comp.
Calit2 Scholar (for 2008 summer research)	1 st Place Oregon High School Chess Team (Capt.)
ACBL Scholar	20 Points Putnam Exam (national math contest)
Award for Excellence in Joint Mathematics-Economics (awarded to one outstanding graduate)	