

# Ted Sanders

212 Pine Hill Court #301 • Stanford, CA 94305 • 971-227-8356 • tedsanders@stanford.edu

## OBJECTIVE

To make more than I take

## EDUCATION

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

## EXPERIENCE

**Graduate Student Researcher**, UC Berkeley/Stanford University *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)

**Smart Grid Researcher**, San Diego Gas & Electric *Summer 2009*  
Led a team that authored a 136-page research report on the technical challenges of integrating large amounts of distributed solar power into the grid, ultimately recommending against residential batteries as a solution, based on dual technical and financial analyses

**Calit2 Summer Scholar**, UCSD Nanoscale Characterization and Devices Lab *Summer 2008*  
Modeled the electromagnetic absorption of nanostructured solar cells capable of surpassing the Shockley-Queisser 34% efficiency limit

**Engineering Intern**, General Atomics – Electronic Systems Inc. *Summer 2007*  
Programmed and deployed an automated capacitor test station that saved labor costs, sped up production, improved measurement accuracy, and provided data to process engineers for analysis

## SKILLS

**Laboratory:** Microelectronic fabrication, laser optics, thin films, x-ray spectroscopy/diffraction

**Analytical:** Probability & statistics, programming, Fourier analysis, machine learning

**Knowledge:** quantum mechanics, statistical mechanics, energy economics, complex oxides

## AWARDS

NSF Graduate Fellow	1 <sup>st</sup> Place ECE Senior Design Project Presentation
Jacobs Scholar (full ride to UC San Diego)	1 <sup>st</sup> Place Cal IEEE Computer Security Challenge
Gordon Scholar (for engineering leadership)	1 <sup>st</sup> Place IEEE SW Ethics Competition
Regents Scholar (for academic excellence)	1 <sup>st</sup> Place Oregon High School Chess Team (Capt.)
Calit2 Scholar (for 2008 summer research)	9 <sup>th</sup> Place USA Collegiate Bridge Championship
National AP Scholar	9 <sup>th</sup> Place DAGGRE Forecasting Competition
ACBL Scholar	
Award for Excellence in Joint Mathematics-Economics (awarded to one outstanding graduate)	