

Ted Sanders

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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 physics, statistical mechanics, energy economics, complex oxides

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 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.)
20 Points Putnam Exam	9 th Place USA Collegiate Bridge Championship
ACBL Scholar	
Award for Excellence in Joint Mathematics-Economics (awarded to one outstanding graduate)	