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		*enrolled*
MS	Applied Science & Technology	UC Berkeley	3.7/4.0	*2012*
BS, BA	Engineering Physics, Math-Economics	UC San Diego	3.8/4.0	*2010*

WORK

Graduate Student Researcher, Stanford University/UC Berkeley *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 (#1 UtiliQ Ranking) *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

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

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

VOLUNTEER

Co-host of science/humor podcast Goggles Optional (30,000+ downloads, iTunes featured)
Teacher for educational pilot of Foldscope (<$1, 140x mag. microscope demoed 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: Programming, probability & statistics, machine learning, quantum physics, statistical mechanics, energy economics, circuit theory, technical writing/blogging/podcasting

AWARDS

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