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Linda Xinlin Chen

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EDUCATION:

Massachusetts Institute of Technology — Cambridge, MA
Candidate for B.S. in Physics and Electrical Engineering (double major) — June 2012 (expected)
GPA: 5.0/5.0
Relevant coursework: Circuits and Electronics, Signals and Systems, Computation Structures, Quantum Mechanics I, II, and III, Statistical Mechanics, Cosmology, Experimental Physics Laboratory, Philosophy of Quantum Mechanics

WORK EXPERIENCE:

MIT Center for Materials Science and Engineering — Cambridge, MA
Research Assistant, Jarillo-Herrero Group — January 2010- September 2010

- Calibrated optical method to identify thin flakes of a topological insulator material with many applications to quantum computing and electronics. This method is currently used by group members in the fabrication of nano-scale electronic devices.
- Obtained data to demonstrate the existence of surface states in a topological insulator material, a first step towards demonstrating more complex quantum phenomenon within this material for applications. Involved in all levels of experimental procedure, including cleanroom fabrication of electronic devices, operation of He3 and He4 fridge, atomic force microscopy, and MATLAB analysis. Presented results at a group meeting.
- Fabricated nano-scale devices for collaborating groups
- Trained incoming graduate student on lab equipment and software

MIT Laboratory for Nuclear Science — Cambridge, MA
Research Assistant, Neutrino and Dark Matter Group — January 2009- Aug 2009

- Wrote programs (in Python and C++) to read and organize MPPC (multi pixel photon counter) data from DMTPC (Dark Matter Time Projection Chamber), towards the goal of directly observing dark matter. Gained basic electronics and programming experience.
- Assisted postdoctoral student with testing of MPPC circuit setup.

Lawrence Berkeley National Laboratory — Berkeley, CA
Research Assistant, Atomic Molecular Optical Group — Summer 2007 and 2008

- Designed and built a system to measure the reflectance of various optical devices, towards the ultimate goal of multi-photon ionization with non-linear UV photons.
- Built single-shot autocorrelator to measure FWHM of femto-second laser pulses.
- Gave presentation about my summer research to an audience of general lab employees.

LEADERSHIP:

MIT Experimental Study Group — Cambridge, MA
Teaching Assistant and Associate Advisor — Spring semester 2009-current

- Tutored freshmen in the Advanced Electricity and Magnetism class (spring 2009), lead discussion groups for the Greek Philosophy and Math class (fall 2009), currently assisting with recitations and providing homework help for the Ancient Greek Philosophy on the Best Life class (fall 2010).
- Associate advisor for MIT freshmen (spring 2010-present), organize social events, answer questions about MIT.

Society of Physics Students — Cambridge, MA
Event Manager — Fall semester 2009-current

- Organize social events for physics undergraduates and faculty, particularly the student-faculty dinners.

MIT Caving Club — Cambridge, MA
Trip Leader — August 2010-current

- Organize and lead day trips to explore caves, ensure people are safe while underground.

SKILLS:

MATLAB, C++, Python, authorized Harvard Center for Nanoscale Systems cleanroom user, trained on AFM, SEM, electron beam lithography, thermal evaporator. Fluent in Mandarin Chinese.