Stephanie Lai Ku

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EDUCATION

June 2014

Massachusetts Institute of Technology

Cambridge, MA

- BS in Mechanical Engineering and Brain & Cognitive Sciences | GPA 4.8/5.0
- Coursework: Mechanics & Materials, Dynamics & Controls, Thermal-fluids Engineering, Manufacturing & Design, Measurement & Instrumentation, Toy Product Design, Neuroscience

June 2010

West Windsor-Plainsboro High School South

Princeton Jct, NJ

Cumulative GPA: 3.91/4.0 | Weighted GPA: 4.61

EXPERIENCE

Sept 2012 – Present

MIT Media Lab - Undergraduate Researcher in Biomechatronics Lab

Cambridge, MA

• Designing an apparatus to test a miniature continuous variable transmission device in multiple angle and torque profiles. The device will fit inside active knee prostheses to reduce power consumption.

May 2012 – Aug 2012

NASA Ames Research Center – Intern of National Space Biomedical Research Institute

Mountain View, CA

- Studied the role of autophagy genes in neural tissue on locomotion of *Drosophila melanogaster* in hypergravity.
- Delivered formal presentation to Space Biosciences lab. First author on presented poster, manuscript in process.

Jan 2011 – May 2012

MIT Picower Institute - Undergraduate Researcher in Wilson Lab

Cambridge, MA

- Studied spatial navigation and memory replay in the hippocampus.
- Conducted cluster analysis of neuronal firing to identify patterns, and taught analysis to other students.
- Led design of behavioral tasks, directed animal training, initiated a system to prepare raw data for computer analysis, built electrodes, assisted in implantation surgery.
- Second author on abstract for SfN Neuroscience 2012.

May 2011 – Aug 2011

Summer Institute for the Gifted—Counselor at Yale University and Dartmouth College

New Haven, CT

- Mentored a residential group of girls ages 12-17.
- Led the most highly-attended nightly tutorials in math and science.
- Supplemented instructors in eight classes (ex., Algebra II, Brain and Dreaming, Medical Research).

Jan 2011 – Feb 2011

MIT Innovations in International Health – Undergraduate Researcher in D-Lab: Health

Cambridge, MA

Hanover, NH

- Designed medical kits for drug delivery and diagnostics in developing countries.
- Developed XoutTB, a simple test that aims to increase treatment compliance.
- Liaison between lab members at MIT and in Nicaragua.

LEADERSHIP

Nov 2010 -

Managing Board, Production Editor—The Tech

Present

• The Tech is MIT's largest and oldest student newspaper. The managing board makes decisions that affect 150 staff and maintains a budget of over \$200,000. I lead the production department, which designs that layout and graphics, and oversees publication of every issue, twice per week.

Jan 2012 –

Philanthropy Chair — Kappa Alpha Theta

Present

- KAO is an international fraternity dedicated to high scholarship, influence of good, and moral standard of love.
- Organize four philanthropy events. The largest is KATwalk, a fashion show that raises \$3000 annually and is attended by over 300 members of the Greater Boston community. I oversee committees, coordinate logistics, and solicit sponsors to supplement a \$2000 budget.
- 150% of previous years' funds raised in each of my completed fundraisers this year

Sept 2011 -

Brigham and Women's Hospital - Volunteer in Medical Careers Exploration Program

Sept 2012

Assisted patients with reduced mobility, transported specimens and equipment, escorted families

DISTINCTIONS

Institute Award: Honorable Mention for Outstanding Academic Record (May 2012) AP Scholar with Distinction, National Youth Science Camp (1 of 2 NJ reps) National Science Olympiad ('09, '10), Future Problem Solving International ('07, '09, '10)

SKILLS

Mathcad	Solidworks	Adobe InDesign	Running
MATLAB	Mastercam	Adobe Photoshop	Equestrian
C++	Machine Tools	Microsoft Office	Guitar