# Kristie L. Yang

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### **EDUCATION**

Duke University, Durham, NC

B.S.E., Biomedical Engineering, 2014 (GPA: 3.74/4.0)

#### **SKILLS**

Proficient MATLAB, Arduino (C-based), Git, and  $\ensuremath{\mbox{\sc l}}\xspace^{-1}$ 

Basic AutoCAD, LabVIEW, Python, and NEURON

Languages: English (Native), Mandarin Chinese (Intermediate), French (Beginner)

#### **ENGINEERING PROJECTS**

### Air Quality Monitor for Asthma and Allergy Patients, Duke University

Aug 2013 - Dec 2013

- Built temperature, humidity, and dust sensor circuitry and wrote Arduino code to collect data and send through Bluetooth to an Android tablet
- Maintained lab notebook during device development and Git repository of the code

# Reflow Oven Design Project, Duke University

Mar 2013 - Apr 2013

• Collaborated with 3 students to program the heating cycle of a reflow oven using PID for the Arduino Uno

## Door Lock, Independent Project

Jul 2013 - Aug 2013

• Engineered a set-up to lock and unlock my dorm room door using a 4 number code, instead of a key, with an Arduino UNO, LED shield, and a servo

#### RESEARCH

#### Whitaker International Research Fellow, Lausanne, Switzerland

Sep 2014 - Present

École Polytechnique Fédérale de Lausanne, Advisor: Prof. Stéphanie P. Lacour

• Design and fabricate soft neural probes with a stiff outer layer to enable insertion into the cortex to allow for chronic neural recordings

# Pratt Research Fellow, Durham, NC

Jan 2013 - May 2014

Duke University, Advisor: Prof. Lori A. Setton

- Designed experiments using a brachyury reporter cell line to identify substrates promoting healthy intervertebral disc cells
- Presented a poster at the 2013 Biomedical Engineering Society's Annual Meeting of nearly 4,000 participants

#### Howard Hughes Research Fellow, Durham NC

Jun 2011 - May 2012

Duke University, Advisor: Prof. Lori A. Setton

- Identified proteins comprising healthy human intervertebral disc extracellular matrix using cell culture and immunohistochemistry techniques
- Published as 6th author on a peer-reviewed article in the Journal of Orthopaedic Research

#### EXTRACURRICULAR ACTIVITIES

#### **Duke University Tour Guide**

Feb 2011 - May 2014

• Lead 1.5 hour campus tours to groups of 20 - 40 prospective students and family members once a week

### **Duke Club Running**

Sep 2011 - May 2014

• Attended daily Duke Club Running Team practice and raced in a multiple 5Ks, 10Ks, and a half-marathon

#### **Duke Hospital Volunteer**

Mar 2012 - May 2014

• Engaged children patients at the Lenox Baker Children's Hospital with age appropriate activities such as board games or drawing for 1 hour every week