

MENGJIA LYU (Kay)

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EDUCATION

BS University of California San Diego, Electrical Engineering March 2017

HONORS AND AWARDS

Finalist Team 9/2017
Awarded to only three teams by ZPower Inc in the Annual Battery Bowl Design Challenge

Provost's Honor 9/2013 – 12/2015
Awarded each quarter to students who receive a minimum grade point average of 3.5

WORK EXPERIENCE

UC San Diego, School of Global Policy and Strategy 1/2018 – 3/2018
Teaching Assistant, Instructor: Professor Reid Otsuji
Tutored graduate students in the school in the data certificate class where R,
Python and data management were taught
Graded course assignments and examinations
Held office hour for an hour every week

UC San Diego, Department of Electrical and Computer Engineering 1/2015 – 12/2017
Teaching Assistant, Multiple Instructors
Tutored undergraduate students in laboratory sessions of introductory classes to
circuit design
Graded course assignments, quizzes and examinations
Held office hour for one hour or two hours every week

UC San Diego, Department of Nanoengineering 1/2017 – 12/2017
Research Assistant, Principle Investigator: Dr. Joseph Wang
Studied literature on wearable biosensor systems and designed custom electronic
interface for biochemical system crafted by Ph.D. students in the lab
Helped resolve technological issues in the lab

UC San Diego, Digital Design Project Course

Team-member, Team Sponsor: Cubic Corporation

Collaborated with team to write software for subway passenger tracking system

Took notes from weekly meetings with our mentor Dr. Tom Busch-Sorensen from Cubic Corporation

Fudan University, Institute of Microelectronics

6/2016 – 8/2016

Research Intern, Principle Investigator: Dr. Patrick Yin Chiang

Designed Printed Circuit Board (PCB) of a finger oximeter prototype

Researched literature on oximeters and functional near-infrared spectroscopy (fNIRS)

Honed skills in self-directed learning and teamwork

UC San Diego, Department of Mechanical Engineering

6/2015 – 8/2015

Research Assistant, Principle Investigator: Dr. Farhat Beg

Wrote supplementary MATLAB code needed to improve the original codes

VOLUNTEER E

Volunteer Greeter, McLean Hospital, Belmont, MA

11/2018- present

Greet and direct patients, families and visitors to their destinations

Respond to questions and provide information

Volunteer, Harvard Square Homeless Shelter, Cambridge, MA

11/2018 - present

Do the laundry and clean the floor of the shelter

Volunteer, Peer Support Network, Cambridge, MA

10/2018 - present

Participate in weekly sessions on recovery from mental illness

Contribute to newsletter

Volunteer, Boston Cares, Boston, MA

10/2018 – present

PUBLICATIONS

Journal Papers Accepted

Bianca Ciui, Aida Martin, Rupesh K Mishra, Barbara Brunetti, Tatsuo Nakagawa, Thomas J Dawkins, **Mengjia Lyu**, Cecilia Cristea, Robert Sandulescu, Joseph Wang
“[Wearable Wireless Tyrosinase Bandage and Microneedle Sensors: Toward Melanoma Screening](#),” Advanced healthcare materials. April 2018.

Bianca Ciui, Aida Martin, Rupesh K Mishra, Tatsuo Nakagawa, Thomas J Dawkins, **Mengjia Lyu**, Cecilia Cristea, Robert Sandulescu, Joseph Wang
“[Chemical Sensing at the Robot Fingertips: Toward Automated Taste Discrimination in Food Samples](#),” ACS Sensors. October 2018.

Journal Papers in Review

Rupesh K Mishra, Aida Martin, Tatsuo Nakagawa, Abbas Barfidokht, Xiaolong Lu, Juliane R Sempionatto, **Kay M Lyu**, Aleksandar Karajic, Mustafa M Musameh, Ilias L Kyratzis. "Detection of Vapor-Phase Organophosphate Threats Using Wearable Conformable Integrated Epidermal and Textile Wireless Biosensor Systems." ACS Sensors. July 2017.

Juliane Sempionatto, Rupesh Mishra, Aida Martin, Guangda Tang, Tatsuo Nakagawa, Xiaolong Lu, ACS Sensors. September 2017.

LANGUAGES

Fluent: English, Mandarin

Intermediate: Spanish

Beginner: Japanese

COMPUTER SKILLS

Programming: C/C++, Java, R, MIPS assembly, Verilog, Python

Applications: RStudio, Stata, MATLAB, Cadence, Xilinx, Visual Studio, MS Office Suite

Platform: Linux, Arduino, Raspberry Pi, Windows, Ubuntu, Mac OS

CERTIFICATES

iLead Leadership Development Program Certificate, UC San Diego 6/2018

Introduction to College Teaching Certificate, UC San Diego 3/2018

ADDITIONAL TRAINING & MOOCs

One Year Program, Boston Graduate School of Psychoanalysis 9/2018 - present

Major Depression in the Population: A Public Health Approach 9/2018 - present

Justice, HarvardX 6/2018

Introduction to Philosophy: God, Knowledge and Consciousness, MITx 9/2018

Introduction to Sociology, EdX	9/2017
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Zhuangzi – Posture, Awareness and Sentiment, Coursera	9/2017
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Buddhism and Modern Psychology, Coursera	9/2017
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OTHER

Hobbies: hiking, meditation, Buddhism, reading, journaling, singing and promoting mental health.