

MENGJIA LYU

100 Haven Ave, New York, NY

646.707.6474

ml4420@columbia.edu

EDUCATION

Master of Science in Biostatistics

Columbia University, expected 2021

Bachelor of Science in Electrical Engineering

University of California, San Diego, 2017

COURSEWORK

Data Science
Digital/Analog Circuit Design
Advanced Data Structures

Probability
Design and Analysis of Algorithms
Microwave Systems & Circuits

Convex Optimization
Classical Sociological Theory
Data Networks

WORK EXPERIENCE

TEACHING ASSISTANT | UC SAN DIEGO, SCHOOL OF GLOBAL POLICY AND STRATEGY

JANUARY 2018 - MARCH 2018

- Tutored in-class for MPP and MIA students enrolled in Data Certificate, which consisted of three modules - R, Python and Data Management
- Graded course assignments and exam submissions
- Held weekly office hour

TEACHING ASSISTANT | UC SAN DIEGO, DEPT OF ELECTRICAL AND COMPUTER ENGINEERING

JANUARY 2015 - DECEMBER 2017

- Led weekly laboratory sessions for an introductory undergraduate class in digital and analog circuit design
- Graded course assignments, quizzes and projects
- Held weekly office hour

RESEARCH ASSISTANT | UC SAN DIEGO, DEPT OF NANOENGINEERING

JANUARY 2017 - DECEMBER 2017

- Worked in collaboration with PhD students on electrochemical wearable sensors in Professor Joseph Wang's lab
- Designed custom-built electronic interface in a team of electrical engineers
- Assisted in resolving technical issues with computers and electronic devices in the lab

SENIOR PROJECT MEMBER | UC SAN DIEGO & CUBIC CORPORATION (SPONSOR)

JANUARY 2017 - MARCH 2017

- Collaborated with three teammates to implement an embedded software system for the subway passenger tracking system being developed at the Cubic Corporation
- Took notes from weekly meetings with team mentor Dr. Tom Busch-Sorensen at the Cubic Corporation
- Soldered circuit elements onto PCBs

RESEARCH INTERN | FUDAN UNIVERSITY, INSTITUTE OF MICROELECTRONICS

JUNE 2016 - AUGUST 2016

- Designed a prototype PCB of a finger oximeter under the mentorship of Professor Patrick Chiang
- Researched on oximeters and functional near-infrared spectroscopy (fNIRS)

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RESEARCH VOLUNTEER | UC SAN DIEGO, DEPT OF MECHANICAL ENGINEERING

JUNE 2015 - AUGUST 2015

- Studied under the supervision of Professor Farhat Beg
- Revised and edited MATLAB code for the research group

PUBLICATIONS

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.

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.

Mishra RK, Martín A, Nakagawa T, Barfidokht A, Lu X, Sempionatto JR, **Lyu KM**, Karajic A, Musameh MM, Kyratzis IL, Wang J. “Detection of vapor-phase organophosphate threats using wearable conformable integrated epidermal and textile wireless biosensor systems,” Biosensors Bioelectronics. March 2018.

Sempionatto JR, Mishra RK, Martín A, Tang G, Nakagawa T, Lu X, Campbell AS, **Lyu KM**, Wang J. “Wearable Ring-Based Sensing Platform for Detecting Chemical Threats,” ACS Sensors. October 2017.

SKILLS

Programming Skills: Proficient in C and MATLAB. Strong knowledge of JAVA, R and Python.

Computer Skills: Strong knowledge of MS Word, Excel and PowerPoint, and statistical applications, including STATA and RStudio. Familiar with Vim, Eclipse, VSCode, Sublime well as Jupyter Notebook.

Language Skills: Bilingual: English and Mandarin.

PERSONAL DEVELOPMENT

Data Analyst in Python

Dataquest.io, 2019

One Year Psychoanalytic Program

Boston Graduate School of Psychoanalysis, Brookline, MA, September 2018 - March 2019