

FEI WANG

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EDUCATION

Tsinghua University

Beijing, China

Major: Biomedical Engineering

Sep 2016 – present

- Selected awards:
 - First prize, 5th National Undergraduate Biomedical Engineering Innovation Design Competition, 2019 (Top 6% of 776 teams)
 - Comprehensive Excellence Award, Tsinghua University, 2019 (Awarded for the top three in the comprehensive evaluation.)
 - Student of the Year, Friends of Tsinghua University, 2019 (Awarded for excellence in both academic and social service, Dalianyejian Scholarship, School of Medicine)
 - Friends of Tsinghua University, 2018 (Dalianyejian Scholarship, Awarded for academic excellence)
 - Third prize, 10th Medical Design Innovation Competition, Tsinghua University, 2018 (Business plan)
 - Excellence in literature and art, University scholarship, 2017 (Top 3 of 400)

Double Degree Major: Business Administration

RESEARCH EXPERIENCE

University of Wisconsin-Madison (Department of Neuroscience)

Madison/Wisconsin, USA

Human motion transparency perception and simulation interface (Supervisor: Prof. Xin Huang) Aug. – Sep. 2019

- Conducted a human psychophysics experiment to measure the perceived speeds of two overlapping visual stimuli that moved at different speeds
- Developed a MATLAB program to simulate the responses of visual cortical neurons to multiple moving stimuli, taking into consideration of the tuning property of the mean response, trial-by-trial variability, the neural encoding rule, and noise distribution

Tsinghua University (Department of Biomedical Engineering)

Beijing, China

Emotion classification based on human EEG signals (Supervisor: Prof. Sen Song) Sep. 2018 – Mar. 2019

- Extracted spatial, temporal and frequency domain features from human EEG signals in response to videos, where trials video episodes were rated in four dimensions of emotion: valence, arousal, liking and dominance
- Classified EEG signals using decision trees and machine learning, with best hit accuracy approaching 81%

A wireless portable epidural electrical stimulation system for rats (Supervisor: Prof. Bo Hong) Sep. 2018 – Mar. 2019

- A hand-made four-channel electrode array implanted above the endocranium of a rat (impedance less than 1 Ohm). A mini-size (27mm * 13mm * 7mm), light-weight and multi-channel stimulus controller carried on a rat's back and controlled by PC wirelessly via Bluetooth

Neural mechanism between hearing damage and sight promotion (Supervisor: Prof. Hua Guo) Jul. 2019 – present

- Conduct a psychophysical experiment to measure brain changes in hearing-impaired patients using MRI (Ongoing)
- Examine whether auditory neurons in the hearing impaired can be redirected to promote the vision

WORK EXPERIENCE

Chioy Medical Company

Beijing, China

Eye-tracking algorithm research and implementation (Advisor: Senior Engineer Zhongwei Ma) Jul – Aug. 2019

- Calibration of a binocular camera: output the parameter matrixes and calibrate the accuracy
- Location of pupils: dynamic recognition of eyes and calculation of the coordinates for the center of eyes

ADDITIONAL INFORMATION

Additional Professional and Extracurricular Experiences

- Vice-chairman, 17th Student Union of School of Medicine and School of Pharmaceutical Science (2018 – 2019)
- Core member, Department of Cultural Exchange of 41th and 42th Tsinghua Student Union (2017 - 2018)
- Outstanding individual award for social work, School of Medicine, Tsinghua University (2018-2019)
- Best debate award, School of Medicine, Tsinghua University (2016)

Computer and Language Skills

- Computer Skills: Matlab, Python, C, R, Quartus, Multisim, Altium Designer, Maestro, Spectra Suite