Teng Zhang

tz333@drexel.edu

EDUCATION

M.S in Materials Science & Engineering **September 2020 – Current**
College of Engineering, Drexel University *Philadelphia, PA*
Bachelor of Materials Science & Engineering **September 2015 – May 2020**
College of Science and Engineering, University of Minnesota-Twin Cities *Minneapolis, MN*

RESEARCH

Undergraduate Research Assistant, Advisor: Prof. Hui Zhang **May 2018-August 2018**
Southeast University, Acoustic Devices Lab *Nanjing, China*

- Studied acoustic impedance matching in ultrasound probe to solve acoustic impendence difference between brain tissue and skull
- Designed a coupling acoustic impedance matching method between hard layer and soft layer, using Chebyshev formula to determine the acoustic impedance of matching layer and applying interference of wave to determine the stimulation wavelength of PZT material to increase the penetration rate
- Programmed MATLAB code for the acoustic impedance matching layer and the wavelength of stimulation wave of PZT layer; chose Copper as the natural matching material and determined the wavelength of stimulation wave
- Constructed a 3-D model of acoustic probe with core parts with AutoCAD to connect with COMSOL for future test
- Co-filed a patent to ultrasound imaging and treatment of brain tissue. Zhang H, et al. Pending

COURSE RESEARCH EXPERIENCE

Senior Design, Advisor: Prof C. Daniel Frisbie and Dr. Schmidt **Jan 2020-May 2020**
Medtronic *Minneapolis, MN*

- Redesign catheter and catheter slitter for lead implantation in CRT to reduce dislodgement rate
- Reduced 90% applied cutting forced with redesigned catheter and catheter slitter