**EDUCATION**

**Master of Science in Biomedical Engineering** May 2021

Wright State University, Dayton OH

* Dean’s List/GPA: 4.0

**Bachelor of Science in Biological Sciences** May 2019

Miami University, Oxford OH

* Study Abroad, German Studies and BiologySept. 2017-Aug. 2018

Ludwig Maximilian Universität, München DE

**RELEVANT COURSEWORK**

Computational Neuroergonomics Neurophotonics & Optical Brain Mapping Optical Imaging

Biomedical Signals Neurons to Behavior in Health/Disease Research Methods

Chemistry Genetics Cell Biology

**TECHNICAL SKILLS**

Cell Culture: Cell line growth and maintenance, HaCaT, HEK293, SCC, Skov3, Neurons

Microsoft: Word, PowerPoint, Excel

Software: Python, MATLAB, JMP

Laboratory: PCR, gel electrophoresis, sterile fume hood, laser spectroscopy, autoclave, light microscope

**RELEVANT WORK EXPERIENCE**

**Graduate Student Researcher**, Wright State University, Dayton OH 2019-Present

* Analyze the use of photobiomodulation of damaged skin and oral tissue post-injury and post-chemotherapy
* Target electron transport chain with infrared lasers to stimulate mitochondrial energy production
* Conduct study on photon stimulation of biological tissue to promote mitochondrial activity
* Use emission spectroscopy to quantify ATP, NADH, ion, and water concentrations before/after treatment

**Undergraduate Student Researcher**, Miami University, Oxford OH 2015-2017

* Worked with bacterial cell cultures to create unique DNA mutations to start transgenic mice lines
* Maintained lab safety standards with immune-deficient transgenic animal care and sterile tissue culture
* Conducted study on cryo-sectioned eye tissue for regeneration via transgenic gene repair in post-natal mice
* Used PCR on plasmid vectors to target gene expression via fluorescent markers and antibiotic resistances

**COURSE PROJECTS**

Research Methods in Human Factors Engineering Spring 2020

* Designed JMP statistical model for identifying subconscious racial bias in decision/preference making
* Collaborated with partner to design and present statistical package and results in a mock-research convention

Computational Neuroergonomics Fall 2019

* Created a machine learning program in Python to record and analyze violent crimes for patterns in victim-perpetrator relationships to assist in suspect identification
* Prepared in-class sample learning presentation to demonstrate AI capabilities

**ACTIVITIES**

Member Taekwondo, Total Taekwondo and Fitness Fall 2017-Present

Community Service/Philanthropy Chair, Sigma Lambda Gamma Sorority Inc. Spr. 2016-Spr. 2019