CHRISTINE O'CONNOR

(310) 876-6918 | coconn20@jhu.edu

EDUCATION

JOHNS HOPKINS UNIVERSITY Baltimore, MD

B.S. Biomedical Engineering, B.S. Computer Science Expected May 2024

- Relevant Coursework: Machine Learning, Introduction to Data Science, Biomedical Data Science, Computer Vision, Introduction to Algorithms, Data Structures, Probability and Statistics

SKILLS

- Computing Languages/Tools: Python, C++, C, Java, MATLAB, x86-64 Assembly, git, emacs, gdb, VS Code
- CAD: Creo Parametric
- Languages: English, Chinese

PROJECTS

SCRABBLE REFEREE (PYTHON)

- Developed the letter image classification and game logic portions of an automated Scrabble referee based on a user-submitted image of the game board.
- Additionally contributed to board detection portion and overall integration between project segments.

PREDICTING DEMENTIA SEVERITY FROM MRI IMAGES (PYTHON)

- Implemented and compared custom convolutional neural network structures (and preprocessing techniques) to classify dementia severity based on magnetic resonance imaging data.

EXPERIENCE

J.P. MORGAN CHASE & CO. Columbus, OH

AI & Data Science Analyst Intern Anticipated: June 2023 – August 2023

- Working with internal stakeholders to develop and deliver data-driven solutions in community and consumer banking.

JOHNS HOPKINS UNIVERSITY DIVISION OF CARDIOLOGY Baltimore, MD

Undergraduate Research Assistant September 2022 – Present

- Worked to design and implement a machine learning model to predict heart failure and a preserved ejection fraction in systemic sclerosis.
- Explain and visualize data to other team members in straightforward, concise ways.

TBI-FLOW Baltimore, MD

Team Member March 2022 – Present

- Conceptualized a point-of-care solution to traumatic brain injury diagnosis inefficacy incorporating stakeholder and competitive landscape analysis in addition to recent technological developments.
- Worked on design and development of a lateral flow assay to detect TBI-correlated biomarkers and led digitization of the test's output.

INSTITUTE OF ATOMIC AND MOLECULAR SCIENCES, ACADEMIA SINICA Taipei, Taiwan

Research Intern June 2022 – August 2022

- Redesigned multiple single- and dual-reporter flip-excision mechanisms to be used as a tool for in vivo imaging.
- Assembled and isolated plasmid DNA through molecular cloning techniques and bacterial transformation.
- Designed and performed validation of plasmid constructs in vitro.

TUTOR Remote

AP Physics and AP Chemistry Tutor August 2020 – June 2022

- Created lesson plans and instructed high school students using in-class material and personal research to provide them with more thorough understanding of topics.