Richard Sear

(414) 491-6731 | 3283 N. Knoll Ter, Milwaukee, WI 53222 | searri.github.io | searri@gwu.edu

Education

BACHELOR OF SCIENCE | MAY 2021 | THE GEORGE WASHINGTON UNIVERSITY

· Majors: Computer Science, Physics
· University Honors Program | GPA: 3.98
· Student Organizations: ACM, GW Undergraduate Review, GW Robotics
· Member of the Tau Beta Pi Honor Society

Work Experience

CHIEF TECHNOLOGY OFFICER INTERN | BUCHANAN & EDWARDS, INC.   MAY 2018 – AUGUST 2018

· Trained machine learning model capable of identifying major facial emotions with ~15% average error rate
· Trained experimental secondary model to identify microexpressions on neutral faces
· Implemented convolutional neural network using Microsoft's Cognitive Toolkit (CNTK) API for Python
· Conducted unsupervised K-means clustering using the Python Scikit-learn module
· Delivered Azure webapp built with Flask to analyze uploaded images

UNDERGRADUATE RESEARCH ASSISTANT | GWU PHYSICS DEPARTMENT   SEPTEMBER 2018 – PRESENT

· Working with Dr. Neil Johnson's research team, studying the many-body physics of user behavior in online extremist groups
· Using Python modules (Scikit-learn and Microsoft CNTK) to conduct machine learning experiments on image data
· Training supervised machine learning models to classify emotions and symbols found in profile images
· Presenting work at the GW Research Days student colloquium (April 2019)

Personal Projects

See the "Class Projects" page on my website for information about what I've been working on in class

· 2019 SEAS Hackathon project: "Friendly FOIA" – a tool to automate FOIA requests for journalists   February 2019
  · https://github.com/searri/friendly-foia
· Software Engineering Final/Personal Project: "Alien Attack!" – an arcade-style game in Java   December 2018
  · https://github.com/searri/Alien-Attack

Skills & Abilities

TECHNICAL SKILLS

· Software: Visual Studio Code; Microsoft Office, Azure App Service; Git; Adobe InDesign, Photoshop, Illustrator; Google Analytics
· Proficient in Python, Java, C, HTML, CSS; familiar with MATLAB, LaTeX, JavaScript

LEADERSHIP/TEAMWORK

· Layout Manager, GW Undergraduate Review   September 2017-Present
· Vice President, GW Robotics   April 2018-Present