Richard Sear

(414) 491-6731 | searri.github.io | 3283 N. Knoll Ter, Milwaukee, WI 53222 | searri98@gmail.com

Education

BACHELOR OF SCIENCE | MAY 2021 | THE GEORGE WASHINGTON UNIVERSITY

- Major in Computer Science with Minors in Physics and Mathematics
- University Honors Program | GPA: 3.88
- Student Organizations/Societies: Tau Beta Pi Honor Society, GW ACM, GW Undergraduate Review, GW Robotics

Work Experience

UNDERGRADUATE RESEARCH ASSISTANT | GWU DYNAMIC ONLINE NETWORKS LAB **SEPTEMBER 2018 – PRESENT**

- Working with Dr. Neil Johnson's research team, studying many-body physics of user behavior in online anti-vax groups
- Performing Sequential Latent Dirichlet Allocation unsupervised topic modeling on text data
- Developed open-source Python package for data bookkeeping and ML experiments: https://github.com/gwdonlab/ogm
- Published work in IEEE Access: https://doi.org/10.1109/ACCESS.2020.2993967

INDEPENDENT CONTRACTOR | CLUSTRX LLC **MAY 2020 – AUGUST 2020**

- Contributed to Jigsaw project applying automation to identifying "flavors" and intensity of online hate
- Performed supervised ensemble ML experiments to classify hate "flavors"
- Integrated Google's Perspective models with traditional methods to find effective ways of scoring hate intensity

STUDENT RESEARCHER | JOHNS HOPKINS HLTCOE SCALE PROGRAM **MAY 2019 – AUGUST 2019**

- Worked with small research team on topic identification and named entity recognition
- Utilized TensorFlow to analyze effects of reduced- and partially reduced-size training sets on text analysis tasks
- Iteratively fine-tuned Google's BERT model using a series of language processing tasks

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

- Trained machine learning model to identify primary emotions with ~15% average error rate (Microsoft CNTK for Python)
- Delivered Azure webapp built with Flask to analyze uploaded images and videos

Projects

See more on my website's "Class Projects" page

- AWS/Arduino IoT board game player — March-April 2020
- Implementation of container manager system in the xv6 operating system — November-December 2020
- Full-stack webapp: registration/advising system developed on a LAMP AWS server — April-May 2019

Skills & Abilities

TECHNICAL SKILLS

- Software: Visual Studio Code; Azure; AWS; Git; Arduino; Adobe InDesign, Photoshop, Illustrator; Google Analytics; MS Office
- Proficient in Python, Java, C, PHP, MySQL, HTML, CSS; familiar with R, MATLAB, LaTeX, Bash

LEADERSHIP/TEAMWORK

- Layout Manager, GW Undergraduate Review — September 2017-Present
- President, GW Robotics — April 2019-April 2020