Julia Bristow

2350 H St NW, Washington, DC
julia_bristow@gwu.edu (804) 393-4566 github.com/julia320

EDUCATION

The George Washington University
Bachelor of Science in Computer Science
Graduation May 2021
GPA 3.8

WORK EXPERIENCE

Johns Hopkins University: HLTCOE
SCALE Researcher, Baltimore, MD
May 2019 - Present

- Research natural language processing, specifically on the task of named entity recognition
- Fine-tune Google's BERT model on specific tasks and write scripts to automate the process
- Implement other fine-tuning approaches found in papers using Tensorflow

GWU School of Engineering and Applied Science: Computing Facilities
*Lab Tech***,** Washington, DC
November 2018 - Present

- Resolve technical issues within the engineering buildings
- Manage and maintain laboratories and equipment for student and faculty use
- Run a series of Raspberry Pi and Arduino workshops on a semesterly basis

University of North Texas: REU
Student Researcher, Denton, TX
May–July 2018

- Helped build a machine learning model capable of making predictions on encrypted data
- Wrote and tested algorithms with different activation functions to find the one with the best performance
- Reviewed and analyzed Homomorphic Encryption libraries using C++

LEADERSHIP

Treasurer for the GWU chapter of ACM, 2019-2020
Communications Chair for GWU chapter of ACM, 2018-19
Learning Assistant for Introduction to Computer Science (Fall 2018) and Discrete Structures (Spring 2019)

TECHNICAL PROJECTS

University Application System (team of 2)
April 2019

- Built a database using MySQL and corresponding website for a hypothetical applications and admissions system
- Integrated the system with two other groups who made course registration and advising systems, respectively

Arduino Heart Rate Monitor (team of 2)
April 2019

- Built a circuit connecting an Arduino to a heartbeat monitor, an LCD screen, a clock, and an environment sensor
- Implemented different types of communication between the hardware components (I2C) and a local Unix host (Serial ports)
- Forked the host's processes to allow the program to collect data in the background while the user entered commands

Maze-Solving Robot (team of 4)
August–November 2017

- Designed a robot from LEGO® MINDSTORMS® parts using infrared, color, and touch sensors
- Wrote an algorithm for the robot to navigate a maze from any starting point, find the end, then go back without making any wrong turns

TECHNICAL SKILLS

Languages: Java, Python, C, SQL, HTML, CSS, PHP
Operating Systems: Windows, Linux (Ubuntu), MAC OS
Tools: Git, bash, Tensorflow, Keras, Arduino, Raspberry Pi, vim, Matlab, Lego Mindstorms, LeJos

COURSEWORK

Completed: Software Development, Data Structures & Algorithms, Software Engineering, Computer Architecture, Algorithms, Systems Programming, Databases, Continuous Algorithms

Fall 2019: Operating Systems, Foundations of Computing, Software Design for Handheld Devices