Julia Bristow

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EDUCATION

The George Washington University
Bachelor of Science in Computer Science
Minors in Psychology and French
GPA 3.7
Graduation May 2021

WORK EXPERIENCE

Amazon
SDE Intern, Virtual
May 2020 – August 2020

- Designed and developed an end to end analytics service to automate a research process on payment data
- Implemented various AWS services for data streaming/storage, such as SNS/SQS, S3, and Redshift clusters

Johns Hopkins University: HLTCOE
SCALE Researcher, Baltimore, MD
May 2019 – August 2019

- Research natural language processing, specifically named entity recognition
- Fine-tuned Google's BERT model on various tasks and increased the performance by ~10%
- Use Tensorflow to implement other fine-tuning approaches found during a literature review

GWU SEAS: Computing Facilities
*Lab Tech***,** Washington, DC
November 2018 – Present

- Resolve technical issues within GW's engineering buildings and laboratories
- Run a series of Raspberry Pi and Arduino workshops on a semesterly basis

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

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

TECHNICAL SKILLS

Languages: Java, C, Python, SQL, Scala (Spark API), Kotlin, PHP, HTML & CSS
Operating Systems: Windows, Linux, MAC OS
Tools: AWS tools (SNS, SQS, Redshift, S3), git, Tensorflow, Keras, Postman, Arduino, Raspberry Pi, bash, vim/emacs, Android Studio, Matlab

TECHNICAL PROJECTS

Koselig: A Music Translator App
November 2019

- Created an Android app that could take any song as input and translate the lyrics to a desired language
- Used the Postman service to call the Musicxmatch and Google Translate APIs

University Application System (team of 3)
April 2019

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

Arduino Heart Rate Monitor
April 2019

- Built a heart rate monitor which could collect data about the user's heart rate and environment while simultaneously allowing the user to enter commands
- Implemented communication between hardware components (I2C) and a local Unix host (Serial ports)

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

- Designed a moving robot with infrared, color, and touch sensors
- Wrote an algorithm for said robot to navigate a maze from any starting point, find the end, then go back without making any wrong turns

LEADERSHIP

Treasurer for the GWU chapter of ACM, 2019-2020
Communications Chair for GWU ACM, 2018-19
Undergraduate TA for Introduction to Computer Science (Fall 2018), Discrete Structures (Spring 2019), Data Structures and Algorithms (Fall 2019), and Software Engineering (Fall 2020)