AREEBA KAUSAR

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EDUCATION:

University of Virginia, School of Engineering and Applied Sciences, (August 2019 - May 2022)

Bachelors of Science (B.S) in Computer Science (GPA: 3.78, Major GPA: 4.00)

<u>Coursework</u>: Program & Data Representation (C++), Software Development Methods (Java), Intro to CS (Python), Intro to Engineering (MATLAB), Theory of Computation, Digital Logic Design, Discrete Mathematics, Multivariable Calculus <u>Activities</u>: UVA Questbridge Scholars, HackCville, Immersive VR Club, Women in CS, Washington Debating & Literary Society

EXPERIENCE:

Research for Sustainable Commerce, McIntire School of Commerce, Charlottesville, VA

Data Science Research Assistant - September 2019 - Present

- Work with large-scale datasets in R; conducting data wrangling, visualization and exploratory data analysis, utilizing Rtools and various R packages (e.g tidyverse, ggplot, googlesheet, deplyr)
- Designed systematic procedures for Google Trends data collection and validation, working in liaison with a 3-person team using Git and GitHub for version control
- Research relevant statistical techniques (e.g., Linear Mixed Effect Model, Regression and Multigroup Factor Analysis) and suitable R packages (e.g., lavaan) for development and implementation of those techniques in the project's model
- Crafting sections of the project's final research paper (on track to submit for publication by the end of 2020)

Sana Dairy Startup, KPK, Pakistan

Remote Frontend Web Development Intern - May 2020 - August 2020

- Designed user-centered, light and accessible UI/UX design for the Social Startup with a rural customer base
- Created a custom Bootstrap4 theme from scratch using HTML5, CSS3, jQuery and Vanilla JS with added animations, a fully responsive web design and optimized for search engines
- Site features a functional PHPMailer contact form connected to an official email server and several jQuery plugins/tools (including Bootstrap scrollspy for web flow, Owl Carousel for responsive slider and Jumbotron for UX Design)
- Performed multi-platform testing following cPanel deployment to ensure cross-Browser compatibility

PROJECTS:

SforStore – *Multipage Full-Stack E-commerce Shopping Store* – Summer 2020

- Built a server from scratch using Express, Node JS and MongoDB; integrated with React Routers, Hooks and Redux-based front-end and PayPal API for payment processing; followed MVC Design Schema pattern with extensive Postman testing
- Functionalities include: Landing Page, User Profiles, Shopping Carts, Product Upload, Inventory Management, PayPal Checkout; implemented various tools and npm packages for implementation (e.g., jsonwebtoken for login authentication, bcrypt for password hashing, axios for http requests, body-parser, cookie-parser for middleware, etc.)

Word Dash – C++ Word Puzzle Solver - Summer 2020

• Wrote a program that reads in letter grids of varying sizes and a text dictionary, printing out 3-22 letter words found in all 8 directions of grid with lightning speed; used hash-tables for fast lookup and shell scripting for run-time optimization

CS Friend – *Java Multithread Printer* - Spring 2020

• Wrote a Java multithreading queue-based printing program that concurrently reads multiple-line greetings from .txt files, utilizes locks and conditions to manage multiple text streams and print greetings into a console-based card

Forest Run – *Multiplayer Python Game* - Fall 2019

• Developed a python game with pygame and integrated a local UVA library gamebox; functionality includes: start screen, score keeping, animations, multiple lives, timer and a restart function

SKILLS:

Programming Languages: Java, C/C++11, Python, R, x86, Shell, MATLAB

Web Development Frameworks: HTML5, CSS3, Modern JavaScript and ES6, React JS, Node JS, MongoDB, JSON, APIs, SEO

Operating Systems: Windows with Bash/Command Line, UNIX with Linux/Ubuntu

Team Work, Deployment and Integration: Git, Jira Agile, Slack, Heroku