# Areeba Kausar

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#### **EDUCATION:**

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

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

<u>Coursework:</u> Multivariable Calculus, Discrete Mathematics, Theory of Computation, Advanced Software Development Techniques, Algorithms, Computer Architecture, Cyber Security, (In-progress:) Operating Systems, Cloud Computing, Database Systems <u>Activities</u>: UVA Questbridge Scholars, Washington Debating & Literary Society, Alpha Phi Omega (APO), Women in CS (WiCS)

#### **SKILLS:**

**Programming Languages and Tools:** Python, Java, C/C++11, R, x86, Shell, MATLAB **Web Development Frameworks:** HTML5, CSS3, Django, PHP, JavaScript, TypeScript, React, Node JS, MongoDB, SQL, JSON **Environments and Tools:** Git, Jira Agile, Heroku, RStudio

#### **EXPERIENCE:**

## Automatic Data Processing (ADP, LLC), Alpharetta, GA

Software Engineering Intern - June 2021 - August 2021

- Completed coding tasks for maintenance of Benefits Enrollment Application UI under Global Product and Tech Program
- Currently working with React, Redux, TypeScript and in-house Tech Frameworks following scrum methodologies

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

<u>Data Science Research Assistant</u> - September 2019 - Present

- Work with large-scale datasets in R, conducting data wrangling, visualization and exploratory analysis with tidyverse
- Work in liaison with a 3-person team in Agile Environment (Jira) using Git for version control
- Research statistical methods with efficient R implementation; design systematic procedures for data collection/validation
- Crafting sections of the project's final research paper (on track for publication submission by the end of 2021)

### Sana Dairy Startup, KPK, Pakistan

Frontend Web Development Intern - May 2020 - July 2020

- Designed a fully responsive and animated Bootstrap4 theme using HTML5, CSS3, Vanilla JS and several jQuery plugins
- Created a unique user-centered UI/UX design allowing organization to establish wider and stronger online presence
- Performed multi-platform testing following cPanel deployment to ensure cross-Browser compatibility
- Successfully programmed and maintained a fully functional website, eliminating hiring need for full-time frontend role

## **PROJECTS:**

## Cache Attack – C++ Covert Channel Timing Attack – Spring 2021

• Wrote a program that implements the prime+probe variant of a cache timing attack, where a Trojan and a Spy exploit the timing differences of a cache hit and a miss, encoding and covertly exchanging a secret message.

## **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, Checkout

#### **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 package and integrated a local UVA library gamebox; functionality includes start screen, score keeping, animations, multiple lives, timer and a restart option

### **VOLUNTEERING:**

## Gwinnett County Public Library, Lilburn, Georgia

Science and Mathematics Tutor - August 2018 - January 2019

• Assisted in the planning and launch of tutoring program, Presidential Volunteer Service Award (PVSA) Recipient