

# AREEBA KAUSAR

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## EDUCATION

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University of Virginia, Charlottesville, VA

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

*August 2019 - May 2022*

Coursework: Multivariable Calculus, Discrete Mathematics, Theory of Computation, Advanced Software Development Techniques, Algorithms, Computer Architecture, Cyber Security, (in-progress:) Operating Systems, Cloud Computing, Database Systems

Activities: UVA Questbridge Scholars, Washington Debating & Literary Society, Alpha Phi Omega (APO), Women in CS (WICS)

## SKILLS

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- Programming Languages: Python, Java, C/C++, R, JavaScript, TypeScript
- Frameworks/Tools: Django, React, Node JS, MongoDB, Heroku, Git

## EXPERIENCE

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Research for Sustainable Commerce Lab, 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 analysis with tidyverse
- Collaborate 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

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

Software Engineering Intern

*June 2021 - August 2021*

- Contributed React, Redux, TypeScript code to Benefit Enrollment Application for use of 30,000+ corporate clients
- Redesigned and improved existing application sections to enhance accessibility, responsiveness and code refactoring
- Learned in-house frameworks, researching components and libraries for efficient and clean design implementation

Sana Dairy Startup, KPK, Pakistan

Frontend Web Development Intern

*May 2020 - July 2020*

- Successfully developed and maintained a completely functional website, eliminating hiring need for full-time frontend role
- Designed a fully responsive and animated Bootstrap4 theme with 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

## PROJECTS

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Cache Attack - C++ Covert Channel Timing Attack

*Spring 2021*

- Implemented prime+probe variant of a cache timing attack, where a Trojan and a Spy exploit the micro-architectural timing differences of a cache hit and a miss, encoding and covertly exchanging a secret message

UVA Friends - Django Social Media Website

*Spring 2021*

- Led five-person team as Scrum Master, facilitating requirements engineering, project management, sprint planning and agile code development; Application functionality include Profile Creation, User Matching, Chat Feature

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
- Functionality 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 gamebox library; functionality includes start screen, score keeping, animations, multiple lives, timer and a restart option