CALEB KWAKYE

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EDUCATION

University of Richmond(UR), Richmond, VA   May 2025

Bachelor of Science in Computer Science
GPA: 3.73
Honors: Richmond Scholar (Full academic scholarship), Oliver Hill Scholar, Dean's List (Spring 2022-Fall 2023), Dean's A-List (Spring 2022-Spring 2023)
Relevant Courses: Data Structures, Algorithms, Software Systems Development, Database Systems, Calculus 1 & 2

SKILLS AND PROFICIENCES

- **Programming languages:** Python, Java, Swift, C++, Javascript
- **Experience with:** Django, HTML, CSS, SQL, Git, Figma, Streamlit,GitHub
- **Interests:** Web Development, iOS Development, Data Analysis and Visualization

WORK EXPERIENCE

Undergraduate Research Fellow, *Department of Computer Science*, UR, Richmond, VA   May 2023 - July 2023

- Worked under Associate Professor Dr. Shweta Ware, contributing to a groundbreaking study on predicting Attention Deficit Hyperactivity Disorder(ADHD) using smartphone sensing and ecological momentary assessment (SASSEMA).
- Collaborated on a team to develop the SASSEMA iOS app using Swift's Core Motion and Heathkit frameworks.
- Programmed the app to run unobtrusive operations in the backend, and devised a data upload mechanism to transfer data to a dedicated server, optimizing data handling and reducing local storage use.
- Developed a dedicated iOS survey app to streamline questionnaire distribution and data collection; poised to result in a 15% operational cost reduction

Teaching and Lab Assistant, *Department of Computer Science , UR ,* Richmond, VA   August 2022 - Present

- Partnered with faculty to mentor and assist 23+ students, aiding in tackling complex coding projects and boosting understanding of intricate technical concepts.
- Fostered a supportive learning environment that encouraged student inquiries and promoted critical thinking, resulting in an average improvement of students' grades by 10%.
- Implemented creative teaching methodologies to explain coding best practices, leading to a 20% increase in the application of efficient coding practices among students.

PROJECTS

SpiderMart Online Marketplace | Django, Python, HTML, TailwindCSS, Javascript   **View Project**

- Developed a robust, versatile e-commerce platform that supports a wide range of products, facilitating secure transactions and a streamlined shopping experience
- Engineered an advanced product search and filtering algorithm, resulting in a simplified shopping experience and rapid access to desired products
- Implemented a comprehensive seller dashboard offering seamless product management, and direct customer engagement to enhance seller experience

Spidey's Dispatch Blog Website | Django, Python, HTML, Bootstrap, Javascript   **View Project**

- Built an engaging, interactive blog site to foster campus community dialogue and attract a diverse and active user base
- Devised a secure authentication system to protect user privacy and promote secure engagement
- Developed a robust content management system that simplified content upload and management processes

SpiderHub Oceanfront Hotel Booking and Management Webapp | Python, HTML, Streamlit   **View Project**

- Designed and developed a user-friendly booking system, to streamline and increase hotel reservation efficiency
- Performed data analysis on customer ratings, employing data visualization techniques to highlight customer satisfaction over a 10 year period

SASSEMA Survey iOS App | Swift   **View Demo**

- Developed a dedicated iOS application offering tailored features for conducting surveys and poised to improve data collection efficiency
- Implemented a robust notification system to alert users of new surveys and updates, intended to increase engagement and participation rates, and ensuring timely data collection

LEADERSHIP EXPERIENCE AND ACTIVITIES

- **Association of Computing Machinery (ACM)** | UR   August 2022 - Present
- **Ambassador**, Arts and Sciences(A&S) NEXT | UR   August 2022 - January 2023