

KAYLIE SAMPSON

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EDUCATION

Dartmouth College, Hanover, NH

June 2025

Bachelor's Degree, Major in Computer Science and Minor in Digital Arts

Activities: Women in Computer Science, HackDartmouth, CoderDojo, DALI Lab

Relevant Coursework: Problem-Solving via Object Oriented Programming, Software Design and Implementation, Discrete Mathematics in Computer Science, Full-Stack Web Development, AR and VR Design, UI/UX Design

RELEVANT EXPERIENCE

Amazon Web Services, Seattle, WA

June 2023 - Present

Software Development Engineer Intern

- Spearheading the design and development of a dynamic protocol state machine in **Rust** that enables seamless connections to **PostgreSQL** database servers, query transmission, and efficient processing of protocol messages
- Driving the implementation of dynamic action registration mechanisms to elevate the customization and adaptability of the communication system for incoming and outgoing messages from the client and server

Digital Applied Learning and Innovation (DALI) Lab, Hanover, NH

January 2022 – Present

Software Engineer, Mentor

- Collaborates with a team of designers and developers to create mobile and web applications, leveraging expertise in **React**, **React Native**, and **Unity** to deliver high-impact and effective solutions to complex problems
- Mentors 40 developers in a fast-paced, collaborative environment by guiding discussions, providing constructive feedback, and sharing expertise in best practices to ensure project success and growth

Pegasystems, Salem, NH

June 2022 – September 2022

Software Engineer Intern – Cloud-Native Runtime

- Developed critical microservices components and internal testing infrastructure in **Kotlin** while implementing rigorous test suites using **Docker**, **Gradle**, and **Jenkins** with respect to the Test-Driven Development process
- Collaborated closely with a high-performing team of 5 software engineers to deliver top-quality software solutions on-time through the full agile process, ensuring clear communication and effective collaboration

SERVICE / LEADERSHIP

Women in Computer Science

Mar 2023 – Present

President

- Oversees the planning and execution of initiatives for a community of 300 women interested in computer science
- Collaborates with the Dartmouth Computer Science Department, serving as a point of contact to strengthen the relationship between the organization and the department, and organizing events that foster engagement

Rewriting the Code

June 2022 – Present

Student Council Peer Leader

- Leads the coordination of Code2gether, a program engaging 200 students in collaborative teams to develop innovative solutions for real-world challenges, while enhancing technical skills and gaining valuable experience
- Engages in leadership workshops offered by LifeLab Learning as a member of the RTC Rising Leader Institute

PROJECTS

MeU

March 2023 – June 2023

Software Engineer & Designer

- Spearheaded the development of a check-in feature in **React Native** by implementing 10 components that enabled the user to create, edit, and delete responses to daily relationship questions about their partner
- Led the integration between the frontend and the **Cloud Firestore** backend by connecting with **Axios**

mGame

September 2022 – March 2023

Software Engineer

- Developed 8 **React** components to construct an engaging and interactive survey for patients at Dartmouth Hitchcock Medical Center, empowering them to establish goals for their medical treatment
- Utilized **Firebase** to establish a secure system for storing and transmitting personal health information

SKILLS & INTERESTS

Technical: Java, Python, C, Rust, React, React-Native, Unity, JavaScript, SQL, Kotlin, Swift, C++, Unity, MongoDB

Interests: Scrapbooking, Traveling, Reading, Tennis, Cross-Country Skiing, Waterskiing, Weightlifting