

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

GPA 3.8/4.0

Activities: Women in Computer Science (President), DALI Lab, HackDartmouth (Developer), CoderDojo (Lecturer)

RELEVANT EXPERIENCE

Amazon Web Services, Seattle, WA

June 2023 - Present

Software Development Engineer Intern

- Spearheads the design and development of a robust **PostgreSQL** protocol state machine in **Rust** that tracks and monitors the state of protocol communication between diverse clients and Aurora Database instances
- Pioneers the integration of additional custom logic within the protocol state machine, empowering AWS **Relational Databases** with unique monitoring features and custom behaviors that allow for advanced debugging

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, web and AR/VR 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

- Developed 10 critical microservices components and various internal testing infrastructure in **Kotlin** while implementing rigorous test suites using **Docker** and **Jenkins** for the low-code Pega Platform
- 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

HackDartmouth

June 2022 – Present

Developer

- Facilitates engaging and interactive in-person workshops on programming fundamentals with a focus on **HTML**, **CSS**, **JavaScript**, **React**, and the basic knowledge and skills needed to build web applications
- Launches the annual hackathon website using **Webflow** to facilitate seamless registration for 100+ participants

Rewriting the Code

June 2022 – Present

Student Council Peer Leader - Remote

- 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 3 fully-functioning screens, enabling users to create, edit, and delete responses to daily relationship questions about their partner
- Managed the seamless integration process between the highly responsive frontend and the **Cloud Firestore** backend, ensuring a smooth and efficient flow of data and real-time updates for enhanced user experience

mGame

September 2022 – March 2023

Software Engineer

- Developed 8 responsive **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
- Established a secure system for storing and transmitting personal health information using **MongoDB**

SKILLS & INTERESTS

Proficient: Java, Python, C, Rust, React, React-Native, Unity, Kotlin, HTML/CSS/JavaScript, SQL, PostgreSQL

Familiar: Swift, C++, Visual Basic, Typescript, Docker, Relational Databases, Firebase, Jenkins, MongoDB, Webflow

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