

Sarah Asad

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[Personal Website](http://www.linkedin.com/in/sarah-asad23) | www.linkedin.com/in/sarah-asad23 | <https://github.com/SarahAsad23>

TECHNICAL SKILLS

Programming Languages	C++, C#, Java, JavaScript, TypeScript, SQL
Operating Systems	Windows, Linux, iOS, Android
Frameworks	React Native, Node.js, Flask, Xamarin, Azure Storage, Azure Functions
Databases	Splunk, Postgres

EDUCATION

Bachelor of Science in Computer Science & Software Engineering	Expected, Jun 2024
University of Washington Bothell, WA	
Dean's List: Spring 2023	
Organizations: Women in Science and Engineering, Women in Cybersecurity, ACM	

RESEARCH EXPERIENCE

Research Assistant , Led by UW Prof. Marc Dupuis	Sep 2023 – Present
University of Washington Bothell, Privacy Perspectives Research	

- Aim to understand how various demographics such as age, race, gender, and levels of security awareness affect individuals' attitudes toward protecting their online presence.
- Working on developing an educational video to assess the impact of education on password manager usage.

Research Assistant , Led by UW Prof. Brent Lagesse (potential publications on my website)	Jun 2023 – Aug 2023
Otto Fredrich University, Smart City Crowd Sensing Research, Bamberg, Germany	

Bamberg is a great tourist attraction but suffers from overcrowding, leading to challenges for residents and the administration. This preliminary research aims to understand the flow of foot traffic using Wi-Fi probing sensors.

Ground Truth

- developed a real-time query-enabled density map to display crowd density using data filtering and analysis techniques.
- Conducted experiments, including on-site observations, proximity, and sensor range tests to validate and filter data from passing cars, bikes, and stable devices.
- Conducted interviews and surveys with locals and tourists to understand perceptions of crowdedness.

System Security

- Designed and implemented a protection framework using Flask and Python to secure incoming data.
- Utilized a dual-model regression-based approach using a Decision and Random Forest Regressors categorizing events as legitimate, or malicious.
- Integrated model into existing architecture as a defense towards DoS and flooding attacks, detecting abnormal data inflow to sensors.

RELEVANT WORK EXPERIENCE

Software Engineer Intern , Gekko Corporation	Oct 2022 – May 2023
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- Designed and implemented the mobile app using React Native with Bluetooth and HealthKit API integration.
- Integrated the mobile app with Splunk database to periodically upload health data and run ML algorithms that categorize data, find outliers, and provide visualizations.
- Researched and recommended using React Native for building the cross platform mobile app, reducing the engineering effort significantly.
- Partnered with 5+ interns to create requirements document and formulate user stores.
- Completed project within the set deadline, resulting in a proof of concept that fulfills 100% of the project requirements.

PROJECTS (Various other projects can be found on my GitHub)

Mobile Application Developer , Call Recorder	Aug 2023 – Present
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- Most operating systems lack native call recording capabilities. This app aims to provide call recording functionality, specifically catering to businesses and situations where recording calls is essential or valuable.
- Cross-platform mobile app developed using React Native.
- Built the backend using Azure Storage and Azure Functions.
- Integrated with Twilio for phone call management and recording functionality.

HackHarvard Hackathon , SustainaBite (Devpost & GitHub)	Oct 2023
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- Collaborated with 3 team members to create a platform which connects restaurants with nonprofits to reduce food waste and aid underserved communities.
- Designed frontend with React Native and Typescript for a seamless user experience.
- Developed Backend built using Google Cloud SQL, Node.js, and Express.js to manage data efficiently.
- Implemented AI solutions with Google Cloud Vision & Google Cloud Natural Language APIs for menu item extraction.
- Integrated location-based services with Google Cloud Geocoding API for restaurant mapping.
- Provided nutritional information for food items using USDA Food Data Central API.

iOS Application Developer, VibeZ Journal ([App Store](#))

Sep 2020 - Mar 2021

- Developed an iOS mobile application to track mental health on daily basis and published to App Store.
- Utilized Xamarin Framework and C# to provide weekly, monthly, and yearly reporting's through various visualizations.
- Integrated with OpenStreetMap and OpenWeather APIs.

OTHER WORK EXPERIENCE

Specialist, Apple

Jun 2022 - Nov 2022

- Contributed to the creation of enthusiasm and energy around Apple products and services by delivering solutions and getting products to guests that fit their needs.
- Interacted and assisted customers with a one-of-a-kind experience and converted Apple store visitors into long-term Apple customers.

Student Leader, University of Washington GenCyber Camp

Jul 2022

- Created an interactive and welcoming learning environment for middle school and high school students to learn the basics of cybersecurity.
- Guided students through cybersecurity related activities on Raspberry Pi's using Kali Linux and taught basic terminal commands.
- Led discussions and lessons on ethics, malware, vulnerabilities, cryptography, steganography.

VOLUNTEER WORK

Volunteer, Al-Sadaqa Foundation

2016 - Present

- Volunteer weekly to help cook and serve food at tent city shelters.
- Manage intake of 100+ people and maintain organization.

Sunday School Teachers Assistant, Muslim Association of Puget Sound

Jan 2021 – Present

- Attend weekly meetings with all assigned teachers to assist in creating lesson plans in line with the curriculum.
- Assist 10+ children in completing assigned projects and oversee the attendance record.
- Plan and lead fundraising events related to the Sunday school department.

Help Desk Operator, Evergreen Hospital

Oct 2017 - Dec 2019

- Facilitated the Information Desk to assist visitors with directions, wheelchair assistance, keeping hallways tidy, and taking on any work that was needed.

CERTIFICATIONS

Splunk: What is Splunk, Intro to Splunk, Visualizations

Nov 2022

AWARDS

Best Poster Award: University of Washington, CSSE Capstone Colloquium, Winter 2023 [Poster](#)

Mar 2023