

ZAIN ASHRAF

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EDUCATION

University of Maryland

College Park, MD

B.S. in Computer Science

Expected Graduation: Spring 2025

Relevant coursework: Object-Oriented Programming, Data Structures and Algorithms, Computer Systems, Discrete Structures, Web Application Development with JavaScript, Linear Algebra, Data Science.

TECHNICAL SKILLS

Languages: Java, Python, Javascript, Dart, Swift, Kotlin, C, C#, SQL, Ruby, CSS, HTML, Ocaml, Rust

Technologies/Frameworks: AWS RDS, Route 53, React.js, Node.js, Express.js, Java Springboot, Flask, Flutter, MongoDB, MySQL, Docker, Kubernetes, Spark, Git/GitHub, Linux, Unity Game Engine

EXPERIENCE

Senseonics, Inc.

Germantown, MD

Software Developer Intern

June 2024 - August 2024

- Designed a mobile app in **Flutter** that tracks **6 nutritional value** intakes including calories, sugar, carbs, fat, protein, and glycemic index for people who suffer from diabetes or high blood sugar.
- Integrated an **Image Recognition** feature into the mobile app using the **Foodvisor API** to identify over **20,000** foods from meal photos, storing the data in an **S3 bucket**.
- Enabled users to log over 150 meal events with glucose levels in an Ambulatory Glucose Profile (**AGP**) **report**, to provide health-related insights for patients and clinicians.
- Developed and tested a mobile app that could **host** a web service, allowing separate devices to connect and turn on/off **NFC scanning**, and return all NFC tags scanned via endpoints, resulting in the handling of over **100 unique NFC tags**.
- Performed automated testing on **AWS Device Farm**, reducing mobile device testing costs by approximately **40%** by eliminating the need for physical device purchases and maintenance.

Leidos, Inc.

Columbia, MD

Software Engineer Intern

June 2023 - August 2023

- Collaborated and communicated with a team of 3 to design a **24-machine blade server** that integrates computing resources from edge devices and securely manages containerized applications using **Kubernetes, Docker, and Rancher**.
- Analyzed **5000 VirusTotal reports** utilizing **PySpark** to extract malware features, enhancing cybersecurity protocols and fortifying defense mechanisms against potential threats.
- Enhanced website usability using **Node.js** by updating **backend data models and routing**, streamlining form submissions, and boosting user engagement by approximately 12%.
- Documented over 100 steps throughout the implementation progress of each task in **Gitlab**, ensuring organization and accessibility.
- Used PowerPoint to present alongside 2 teammates on the project development experience and the use of teamwork, earning the **AFCEA Best Presentation Scholarship Award**.

SOFTWARE PROJECTS

Portfolio Website: <https://zash744.github.io/Portfolio/>

Book Blog | AWS RDS, Route 53, Javascript, CSS, HTML, Flask, SQL

- Designed a website allowing readers to rate their favorite books in a virtual library, with access to information on over 10,000 books, also integrating features such as user authentication.

Meal Tracking App | Flutter, Dart, Isar, S3, DMS, DMS PRO

- Created a mobile application that utilizes an Image Recognition API to recognize meals, recording 150+ events and providing key insights into glucose levels for health monitoring.

Full-Stack Fantasy Football Stat Web Application | React.js, Java Springboot, Python, SQL, MySQL

- Engineered a web application that provides fantasy football players access to approximately 12,000 NFL statistics, utilizing data scraping and storing information in a MySQL database.