Samuel Gibson

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Education

Bachelor of Science in Software Engineering **August 2021 – December 2023**
Washington State University, Everett, WA

Technical Skills

Programming Languages: C#, Java, Python, Javascript/Typescript, HTML/CSS, MATLAB, SQL.
Frameworks: Blazor, .NET, JUnit, NUnit, WinForms, Godot, NodeJS, Express, React, Redux, RESTful APIs.
Developer Tools & Platforms: Azure, Gradle, Checkstyle, GitHub, Neo4j, GitHub Actions.

Experience

Volunteer Software Engineer **March 2024 – June 2024**
Remote, WA
• Developed a static web application for upload, retrieval, and management of images, image tags, and text with **Azure Static Web App**, **SQL Database**, **Azure Blob Storage,** and **Azure Functions** in **Blazor**, improving the client's outreach, productivity, and reducing service costs by 33%.
• Utilized GitHub **OAuth** to prevent anonymous Azure Functions **REST API** calls securing client's backend resources.
• Designed attractive mobile-friendly **MudBlazor** front end for display of images and admin functionalities.

Data Structures and Algorithms Teaching Assistant **January 2023 – May 2023**
Washington State University, Everett, WA
• Provided feedback on assignments in an online class of 20, allowing the professor increased productivity.
• Conducted Zoom office hours twice a week, aiding students in algorithm design, programming environment setup, object-oriented principles, and Java syntax, improving class success by 25%.

Projects

BanWho? Data Analytic Web App (C#) **January 2024 – March 2024**
• Developed a **full stack** web application to discover and display statistics from raw data retrieved by the Riot Games API with **Azure App Service**, **SQL Database**, **Entity Framework Core**, and **Blazor.**
• Designed algorithms for efficiently gathering, crawling, aggregating, and storing of over 100,000 data entries at 60 minute scheduled intervals, resulting in accurate, up to date, and comprehensible data presented to users.
• Utilized the clean architecture pattern and dependency injection to improve maintainability of the application.

Bullet Hell Game (C#) **January 2023 – May 2023**
• Collaborating as a team, applied software design patterns (observer, command, strategy, singleton, composite, flyweight) to create a scalable and extendable 2D game, improving the rate of implementing new features.
• Employed design principles such as encapsulation, coupling, open-closed, and substitution, improving maintainability, code quality, and readability.

Checkstyle Plugin (Java) **August 2022 – December 2022**
• Developed a plugin that checks additional metrics with Eclipse Checkstyle including 5 Halstead metrics: difficulty, effort, length, vocabulary, and volume to further enforce maintainability and quality of code.
• Tested plugin by utilizing white and black box test cases focusing on branch, statement, and fault coverage.

Boeing Scholars Bolt Preload Analysis (Python) **August 2022 – May 2023**
• Led software development in an **agile** multi-disciplinary team to visualize preload loss data collected through electrical and mechanical experimental setups into a portable application with **Tkinter**, enabling clear presentation of the team's results, landing the team in the WSU Business Competition finals.
• Effectively communicated 4 presentations to stakeholders throughout each development stage.
• Elicited software requirements by regularly communicating with 2 Boeing clients over the course of 8 months.