

Aly Badr

+1-360-890-9377 | alybadr2409@gmail.com | <https://www.linkedin.com/in/badrally/>

SUMMARY

Detail-oriented Software Engineer with a strong foundation in computer science principles, including object-oriented programming, data structures, algorithms, and problem-solving. Experienced in designing and maintaining scalable backend services, RESTful APIs, and full-stack applications using Java, Python, and JavaScript.

EXPERIENCE

Shonen Sprint

Jan 2025 - Mar 2025

Software Engineer

Tacoma, WA

- Designed and developed a high quality browser-based game using **JavaScript** and **React** to deliver fast, dynamic gameplay.
- Implemented bounding box collision detection to manage interactions between player characters, obstacles, and power-ups.
- Utilized game loops, event listeners, and animation frames to support continuous character movement, obstacle generation, and user input.
- Modularized game architecture for scalability and enhanced replayability through randomized environments.
- Optimized game performance by managing **memory usage**, minimizing reflows, and reducing **DOM manipulation**, resulting in smoother gameplay across browsers.

Serverless Computing Performance Analysis

Sep 2024 - Dec 2024

Cloud Software Engineer

Tacoma, WA

- Architected and deployed a serverless system using **AWS Lambda**, **Amazon S3**, and **EC2** to analyze runtime/cost trade-offs.
- Benchmarked **Java** and **Python** implementations for data transformation, evaluate scalability, execution and cost efficiency.
- Applied core CS concepts to develop efficient data transformation logic and optimize runtime performance.
- Applied AI-assisted tools (**GitHub Copilot**, **ChatGPT**) to accelerate cross-language development.
- Automated performance testing with controlled experiments to benchmark cloud performance.
- Delivered key insights on serverless computing trade-offs to optimize language selection for cloud applications.

Vehicle Vault

Jun 2024 - Aug 2024

Full-Stack Web Developer

Tacoma, WA

- Developed **RESTful APIs** using **Node.js** and **PHP** to support seamless front-end/back-end integration and improve application scalability.
- Built dynamic UIs using **JavaScript**, **HTML**, and **CSS**, aligned with **React** and modern component-based frameworks.
- Optimized **MySQL** database operations for high-volume datasets (10,000+ records) to improve performance and reliability.
- Collaborated with cross-functional teams to align system features with user needs and ensure product quality.
- Integrated comprehensive logging, error handling, and scalable system design patterns.

EDUCATION

University of Washington - Tacoma, WA

Mar 2025

Bachelors of Science, Computer Science (GPA: 3.7)

- Achievements:** Dean's List - Fall 2023 - Autumn 2024 | Graduation: March 2025

TECHNICAL SKILLS

- Coding Languages:** Python, C, Java, JavaScript, HTML, SQL, CSS, R
- Databases:** PostgreSQL, MongoDB, MySQL
- Frameworks & Methodologies:** RESTful services, Agile frameworks, ReactJS, Node.js, Express.js, PHP, FastAPI
- Software:** Tableau, XAMPP/Apache, R Studio, VsCode, IntelliJ, GitHub/GitLab, AWS
- Cloud Platforms:** AWS(Lambda, EC2, S3), Serverless Architecture
- Soft Skills:** Problem-Solving, Innovation, Team Collaboration, Avid Learner, Deadline Orientated, Communication