Fatema Haque

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Game Development | Full-Stack Web Development | Performance Optimization

PROFESSIONAL SUMMARY

Innovative software developer with 4+ years of experience developing interactive educational games in Unity. Skilled in 3D spatial interaction design, data visualization, front-end development, and intuitive user interface design. Strong foundation in computer science, mathematics and software architecture with hands-on experience building web applications and 3D applications through a variety of technical projects, and a proven ability to deliver high-impact, scalable solutions.

CAREER HIGHLIGHTS

- Created interactive learning experiences that enabled students to advance from the 50th to the 58th percentile, nearly doubling typical annual learning outcomes, as documented in an independent 2023 RAND study.
- Developed 30+ educational games using Unity and C#, supporting blended learning pedagogies in classrooms across North America.
- Created browser-based data pipelines and visualizations, optimizing loading times through streamlined integrations with Google Sheets and external datasets.
- Achieved 2nd Place at Hacking Mount Pearl 2021 for developing "Find My Way", a mentorship app connecting students to career pathways.

PROFESSIONAL EXPERIENCE

Game Developer
Carnegie Learning | St. John's, NL, Canada | Apr 2023-Jun 2025
- Developed 30+ gamified math learning models in Unity and C#, improving engagement and learning outcomes.
- Streamlined large-scale data handling and front-end display logic, reducing level load times by 20%.
- Implemented math-focused simulations to teach complex mathematical concepts through interactive, system-driven gameplay.
- Leveraged AI techniques and data-driven iteration to implement adaptive learning methods, optimizing gameplay to better support diverse learners.
- Mentored 2 junior developers, conducting code reviews and coaching on topics including software architecture and modular design.
- Partnered with artists, designers, and educators to ensure gameplay was engaging and aligned with instructional design guidelines.

Junior Game Developer
Carnegie Learning | St. John's, NL, Canada | May 2022-Apr 2023
- Developed comprehensive unit tests to validate core mechanics and maintain code reliability, reducing post-launch bugs by 20%.
- Optimized rendering, animation pipelines, and UI responsiveness for high-performance front-end delivery.
- Prototyped and refined 2D/3D learning mechanics with senior developers, contributing to 6 successful feature launches.
- Developed gameplay systems involving object interactions and movement physics, contributing to realistic, simulation-style player experiences.
- Contributed to team code reviews and promoted clean software architecture practices in Unity's ECS and multi-threaded development workflows.

Game Development Intern
Carnegie Learning | St. John's, NL, Canada | Jan 2021-Apr 2022
- Recognized by senior developers for rapid onboarding, adaptability, and collaborative spirit, praised as a quick learner and positive contributor to both team culture and product quality.
- Eliminated high-impact bugs, resulting in a 15% boost in game stability and a smoother user experience.
- Identified and addressed accessibility gaps, delivering features that enhanced usability for diverse learners.

EDUCATION

Bachelor of Science (BS): Computer Science
Memorial University of Newfoundland | St. John's, NL | 2022

KEY SKILLS

- **Programming Languages:** C#, C++, JavaScript.
- **Frameworks/Tools:** Unity (certified), React, Bootstrap, Node.js, Git, PlasticSCM.
- **Game and Web Development:** HTML5, CSS3, MySQL, AI Systems, Gameplay Systems, Performance Optimization, Animation Trees.
- **Software Development:** Problem-Solving Skills, Object-Oriented Programming, Entity Component System, Software Architecture, Design Patterns, Debugging, Data Structures & Algorithms, UI/UX prototyping, Data Visualization.