Zachariah Hale

319 6th Ave NE, Glen Burnie, MD, 21060
ZachHale@pm.me | (443)-317-7552

Developer experienced in many roles and environments including game development, virtual and augmented reality applications, and web development. This extensive experience lets me look at problems from multiple angles as well as understand how my work fits into the overall development lifecycle. I am confident in my ability to take on any challenge and constantly look to improve my understanding of the work of my fellow peers to better hone my own skills.

Tools & Technologies

Unity, Unreal Engine, VR, AR, GitLab, Github, Maya, Blender, Substance Designer, Substance Painter, Photoshop, Figma, Microsoft Office. Jira, Trello.

Technical Skills

C#, C++, Java, JavaScript, TypeScript, Lua, Html, Css, React, Redux, MongoDB, MaterialUI.

Work Experience

Software Engineer **Clarity Innovations**, Columbia, MD   August 2022 - November 2023
- Primarily on the front end and update api endpoints and queries with Nodejs and MongoDB for new features.
- User interface allowing users to search on large datasets (Images, Documents, Videos, Audio ect.)
- Redesigned pages and added new interfaces for users to sort through data, e.g. histograms, infinite scrolling, actionable group selection of files, ect.
- Improved accessibility of application based on user feedback, e.g. keyboard controls, intuitive placement of items.
- Updated project using redux to use redux toolkit.

Lead Developer **E-Scape Productions**, Columbia, MD   December 2021 - August 2022
- Lead Developer for two mobile games, Balloon Beach and Goblin Squire with heavy focus on UI Programming and Design initially.
- Developed core gameplay mechanics, AI, and progression systems.
- Implemented services for Google Play and Game Center.
- Improved performance of the games to work on older devices.
- Created levels and tutorials for games.

Software Engineer Intern **Balti Virtual**, Baltimore, MD   January 2020 - August 2020
- Developed a VR interactable map rendered from Mapbox data with controls for pan, zoom, rotation, and placing pins.
- Research and Development for three.js and cannon.js for use in making physics based games in JavaScript. Worked with the art team to develop three web AR game demos similar to Snake, Doodle Jump, and Temple Run.
- Research and Development for Oculus Hand Tracking interaction with Unity project.

Education

University of Maryland, Baltimore County (UMBC) (3.578 GPA)   Baltimore, MD
Bachelor of Science in Computer Science
Member of UMBC Game Developers Club   May 2020

Personal Projects

Shatter Ball, *Game Developers Club*   **August 2019 - January 2020**
- Solo project. 3D mobile game prototype. Player controls a ball that they can slingshot at high speeds. They must reach the end of the course as fast as they can.

Skeletons in Hats, *Game Developers Club*   **August 2018 - March 2019**
- Project Lead / Programming Lead. 3D Multiplayer Arena Game. Each player must collect stat increases by destroying objects and fighting. Players can find hats in the world that give them different abilities to play with.
- I developed the multiplayer input system, character controls/physics, and abilities.

Little Golem, *Game Developers Club*   **August 2017 - March 2018**
- Lead Programmer. 3D Puzzle Adventure Game where you play a golem with the abilities to roll around and tilt gravity to solve puzzles. Project consisted of a complete tutorial/introduction.
- I developed core gameplay mechanics, physics, A.I., and some art.

Game Jams:
> The Final Disaster, Keep Dry and Carry On, Couch Movers, and Killed in Transmission.