# ZACK B WILSON

#### **Profile:**

Game/software developer with over 10 years experience coding. Has passion for creativity, aesthetics, pragmatism, efficiency, sensible architecture, and UX — I believe software should be fun to use and to work on! Looking to take on any software project that will allow me to learn, expand my skills, and be challenged. Though my focus is in games, I am open to work in a variety of fields.

### **Education:**

Rochester Institute of Technology, Rochester, NY

**Graduated:** December 2023, *summa cum laude (GPA 3.980)* **Major:** Bachelor of Science, Game Design & Development

#### Skills:

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- C#, JavaScript, HTML, CSS, GDScript, C++, Java
- Unity3D, Visual Studio, VSCode, Godot, Firebase, OpenGL, MonoGame, PixiJS, GitHub, Adobe Creative Cloud, Aseprite
- Aside from coding, some experience with most stages/aspects of the game/software development pipeline
- High level mathematics (Linear Algebra, Vector Math, Calculus, Trigonometry, 3D graphics math, Newtonian physics)
- Experienced with both Mac OSX and Microsoft Windows, working knowledge of Unix terminal
- Experienced with working in a team, strong leadership skills, flexible, fast learner, well-versed in kanban and agile development

## Work Experience:

- Worked as part of a small team to build a 3D stealth/action indie game for PC/Mac using Unity and C#.
- Utilized a variety of systems such as NavMesh, steering behaviors, finite state machines, animation events, ScriptableObjects, JSON data storage, singletons, events, etc.
- Provided the code, music, and concept art for the game. Also handled UI and assisted with many other aspects such as design, shaders, VFX, SFX, and PR.
- Experienced the full production cycle of a game, including providing updates post-release.
- Attended PAX East (as part of the PAX Rising Showcase) and MAGFest (as part of the MAGFest Indie Videogame Showcase) with the team to promote the game in person, taking feedback and occasionally fixing bugs on-site.

- Mentored a class of 59 students in an intermediate C#/Unity game programming course with a focus on modeling real-world behavior such as physics, collision detection, and steering behaviors.
- Graded students' exercises and exams online and assisted students with issues via a class Slack workspace.
- Provided office hours for students who need help.

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- Mentored a class of 30 students in an introductory C# programming class.
- Graded students' C# exercises and assessments online and assisted students with issues via a class Discord server.
- Adapted to the needs of different students and the limitations of the new online format in order to appropriately assist.

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- Assisted students with coding and computer troubleshooting when necessary in the Interactive Games and Media labs at RIT.
- Enforced lab rules, checked PCs for issues, and performed clean up duties without direct supervision each shift.
- After the switch to an online format, continued working to assist students with code through a Discord server and scheduled tutoring hours.
- Mainly assisted with C# programming as well as some MonoDevelop and Unity issues.

## **Personal Projects:**

- Solo project Built a 2D twin stick shooter using Unity and C#.
- Handled all aspects of development. Coding required a large emphasis on steering behaviors for Al and inverse kinematics, which I wrote custom systems for. Also utilized Perlin noise to create realistic ocean waves.
- Used Aseprite to create pixel art backgrounds and text assets which were displayed using a custom sprite text script that involves reading
  pixels from a sprite sheet and writing them to a target texture to be displayed on screen.
- Learned how to use Unity's Sprite Shapes to create an easily modifiable level design.

- Created a 2D platformer/action game using C# and the MonoGame library in a team of five.
- Personally came up with the general design idea of traversing cyberpunk-themed levels with a grappling hook and fighting enemies. Led
  weekly team meetings and held team members accountable to their roles and deadlines.
- Developed the core systems of drawing/screen scrolling and physics, and created character art and music.