

RYAN DAVIDSON

TECHNICAL DESIGNER, PROGRAMMER

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Denver, CO (seeking relocation)

Computer Science Graduate with a passion for programming and problem solving. Looking to use my excellent communication skills and technical expertise to develop impactful interactive narrative experiences.

TOOLS AND SKILLS

Programming Languages:

C++, C#, C, GDScript, Java

Programming Principles:

OOP, Data Structures, Algorithms, Multithreading, Operating Systems

Applications and Software:

Git, G-Suite, MS Office, OpenGL, Sourcetree, Trello, JIRA, Github projects, Unity, and Unreal Engine

Soft Skills:

Communication, Storytelling, Planning, Public Speaking

WORK EXPERIENCE

Game Programmer

Studio SE (PT Contract)
May 2024 - Present

AV/IT Support Technician

Sturm College of Law
Aug 2022 - Present

Technical & Admin Intern

Nonprofit Learning Lab
July 2021- Sep 2021

EDUCATION

University Of Denver

B.S. Computer Science
Minors in Mathematics
and Political Science

EXTRA XP & INTERESTS

- Favorite Games Include Destiny, Hollow Knight, and Outer Wilds,
- Acting, Poetry, and Performance
- Dungeons and Dragons

GAMEPLAY PROGRAMMING

- **4 years XP in Java, 2 Years XP in C#, C++, and Python.** Developing multi-month prototypes and projects in Unity and Unreal Engine
 - **Developed AI state machines and decision trees** to control enemy behavior
 - Implemented **Object Pooling** to maintain efficiency
 - **Customized User Interfaces** to convey state of player **resources and abilities**
 - **Refactored prototypes** to address design gaps
- Well-versed with **source control tools** such as Git and organizational best practices
- Regressed over code to **assess design**, resolve bugs, and **improve performance**
- Studied Mathematics, **linear algebra**, trigonometry, cryptography. Implemented these concepts with numerous languages and frameworks, including **C#, C++, and OpenGL**
- Regressed over bugs to assure they are fixed and documented condition
- **2 years' experience as technical support:** resolve issues with AV equipment, computers, and networks. Optimized setup, troubleshooting of Mac, Windows, and Linux machines

DESIGN

- **Rapidly prototyped** 5 digital and over 10 analog game designs to assess design strengths and weaknesses, identify issues, balance systems, and **find the fun**
- Reviewed and delivered **technical** and **design-oriented feedback** to team members
- Utilized organizational tools such as **Trello and Github Projects** to keep track of progress and weigh deadlines when **considering new mechanics** and features
- Several years of building encounters, **evaluating balance**, and **expanding design** for existing tabletop RPG systems such as D&D, Savage Worlds, and Blades in the Dark

COLLABORATION AND COMMUNICATION

- Led developers, coordinated with game designers and artists to **manage features and planning** on short deadlines of 48 hours for game jam projects
- **Coordinated implementation of features and delegation of tasks** to manage within deadlines set by team consensus for Star Charger
- Provided **clear communication and detailed explanations** to team members on status of current issues, upcoming projects, and **inner-workings of code architecture**

HIGHLIGHTED PERSONAL PROJECTS

Sole Programmer and Designer | [Bitwise Key](#) | Unreal Engine | C++ | Team of 2

First Person 3d metroidvania/roguelike tying player progression to the acquisition of randomized abilities. Implemented **AI behavior through state trees**, the randomization mechanics, and the **character movement controls**. 1 Year

Programmer and Designer | [Nano Escape](#) | Unity | C# | Team of 7

Top Down shooter linking size, health, and ammo. Programmed movement controls and scaling/ammo systems. Coordinated planning and integration of features. 96 Hour game jam

Systems and UI Programmer | [Star Charger](#) | Unity | C# | Team of 7

Bullet hell space shooter. Developed game systems with Parameterized variables and intuitive UI design. Served as producer, taking an active role in coordinating delegation of tasks and organization of milestones in the game development pipeline. 9 months