## RYAN DAVIDSON

## **TECHNICAL DESIGNER**

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<a href="mailto:Denver">Denver</a>, 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
  - 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

## **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 ol tools such as **Trello and Jira** 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

## ModelRunner | Programmer & Designer Unreal | C++ | Solo | Studio SE

3D runner/quiz game created for <u>Studio SE</u> for use as a trade show booth attraction. **Outlined and executed** concept within **provided specifications** and design constraints such as short development time. **Programmed and implemented all systems**. 1 Month

<u>Bitwise Key</u> | Sole Programmer & Designer | Unreal | C++ | Team of 2 | Freelance First Person 3d metroidvania/roguelike tying player progression to the acquisition of randomized abilities. Implemented Al behavior through state trees, the randomization mechanics, and the character movement controls. 1 Year

<u>Star Charger</u> | Systems and UI Programmer | Unity | C# | Team of 7 | Freelance Bullet hell space shooter. Developed game systems with Parameterized variables and intuitive UI design. Also served as producer, taking an active role in coordinating source control, task delegation, and milestones in the game development pipeline. 9 months