Joshua Lerin Zacharia

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SKILLS

Skills: Game Engines: Unreal Engine, Unity, GameMaker

Programming Languages: C#, C++, GML, Python

Gameplay Engineering: Player controllers, combat systems, AI behavior (FSMs, NavMesh), Physics systems, collision detection, and interactions, Input systems, UI/UX systems

Multiplayer & Systems: Networking fundamentals (client-server architecture, RPCs, sync), Save/load systems, serialization, and data persistence

Software Engineering Practices: Object-Oriented Programming (OOP) & design patterns, Clean, maintainable, and scalable code architecture, Cross-functional collaboration (designers, artists, engineer

EDUCATION

Northern Arizona University **Flagstaff, AZ**

Masters in Information Technology *Graduation Date: May 2026*

S.K. Somaiya College of Arts, Commerce and Science **Mumbai, Maharashtra**

Bachelors in Science: Computer Science *Graduation Date: Dec 2020*

PROJECTS

Probending Arena - Competitive FPS

Game Developer *Jan 2026 - Present*

- Architected competitive first-person arena shooter featuring physics-based projectile combat with mouse-guided trajectory control, 4 distinct elemental classes (Fire/Water/Earth/Air), and advanced movement tech (air-dashing, slam attacks, element-specific recovery mechanics)
- Designed and balanced asymmetric gameplay across character classes, tuning 15+ variables per class (projectile speed/damage, movement modifiers, ability cooldowns) to ensure competitive viability while maintaining distinct playstyles inspired by MOBA-FPS hybrids
- Implemented modular component architecture using OOP design patterns for rapid iteration on combat abilities, weapon systems, and multiplayer-ready networking foundation with health management, respawn logic, and zone-based territorial gameplay
- Built comprehensive UI/UX systems including dynamic world-space health bars, element selection HUD, ability cooldown visualizations, and real-time mouse velocity tracking for gesture-based attack mechanics

Project: Fear (First-Person Horror Game)

Game Developer *Jan 2024 - Present*

- Sole developer for complete survival horror game, managing full production from concept to playable build including C++/Blueprint programming, AI systems, level design, sound design, and environmental storytelling across multiple interconnected levels
- Engineered complex AI behavior systems with navmesh pathfinding, sight/sound perception, chase/patrol state machines, and full-body Inverse Kinematics for procedural creature animations and environmental interaction
- Developed comprehensive gameplay systems including grid-based inventory management, interactive environmental puzzles (levers, combination locks, physics objects), dynamic flashlight mechanics with battery depletion, and persistent save/checkpoint architecture
- Produced complete audio design from scratch using Unreal's MetaSounds, implementing 3D spatial audio with occlusion/attenuation, ambient soundscapes, creature audio, and dynamic music systems to enhance psychological tension

Global Game Jam - NAU **Flagstaff, AZ**

Solo Game Developer *Feb 2026 - Feb 2026*

- Architected and developed complete action-survival game from concept to published build in 48 hours using GameMaker Studio 2, implementing object-oriented enemy AI with state machine architecture, dynamic 5-mode player transformation system, wave-based difficulty scaling algorithms, dual game mode support, and real-time adaptive audio integration while maintaining 60 FPS performance with 30+ simultaneous entities
- Engineered modular enemy AI system using parent-child inheritance structure supporting 3 distinct enemy types with strategic behavioral patterns, attack telegraphing with 0.3-0.75s wind-up windows, collision optimization, and pathfinding logic, reducing code duplication by 60% and enabling rapid iteration on enemy behaviors and balance tuning
- Designed core gameplay loop centered on risk-reward health transformation mechanic with 5 combat archetypes (Titan, Warrior, Balanced, Agile, Berserker), iteratively balancing 12+ gameplay variables through rapid prototyping and playtesting to create meaningful strategic depth, player choice, and skill expression across 15+ minute play sessions
- Implemented complete technical infrastructure including dynamic camera system with smooth interpolation and boundary constraints, persistent data storage using INI file I/O for high scores and settings, comprehensive UI/UX flow (menu navigation, HUD, settings configuration, game state transitions), particle effect systems, screen shake feedback, and combo multiplier visualization
- Delivered production-ready game build within strict deadline through aggressive scope management and feature prioritization, making data-driven decisions to cut 40% of planned features while preserving core experience quality, conducting real-time bug triage, and maintaining development velocity despite physical constraints
- Published game to itch.io and Global Game Jam platforms (https://shawnbraven.itch.io/fragment-of-the-mask), demonstrating full-stack development capabilities spanning gameplay programming, systems design, UI implementation, audio integration, performance optimization, and end-to-end project delivery under pressure

CERTIFICATIONS (UDEMY)

Unreal Engine: Ultimate Survival Horror Course
Pro Unreal Engine Game Coding
Learn How To Create A Survival Horror In Unreal Engine
Complete C# Unity Game Developer 2D
Unity: Beginner to Advanced – Complete Course
The Complete Unity Indie Game Developer Course
Concept Art Character Design