Rajin Shankar
Software Engineer

web   rajinshankar.com
email   rajin@rajinshankar.com

Professional Experience

Game Developer, Independent *(2017 – present)*

- Designed, developed, and released small games (Pet Putt, Slug Slasher, Paper Jam)
- Coordinated small team projects including local team members and external contractors
- Showcased work at conventions with 20,000+ attendees and smaller local events

Game Programmer / Designer, Contract *(5 months, 2018)*
Diorama Detective (Studio Cypher, August 2019)

- Developed a mobile AR game prototype using Unity for an independent studio client
- Rapidly iterated on game and UX design based on player and client feedback with a 3-person team
- Designed and produced modular, extensible editor tools and game code (Unity, C#)

Technical Art Consultant, Contract *(3 months, 2018)*
Unannounced Project

- Provided assistance with implementation of a distinctive visual style using the Unity engine for an independent studio client
- Produced prototype editor tools, animation systems and art assets

Web & Digital Design Specialist *(2016 – 17)*
IU Jacobs School of Music

- Managed web content through proprietary and third-party content management solutions
- Created tools for non-technical team members to quickly produce weekly HTML newsletters

Education

B.S. with Highest Distinction, Computer Science
Indiana University (08/2016 – 12/2019)

- Software systems (C / C++, C#, Rust, Python, Java)
- Graphics programming (Vulkan, OpenGL)
- Linear algebra and discrete mathematics
- Technical game art (materials, rigging, VFX)
- Analysis of data structures and algorithms
- Implementation of interpreters, compilers, and runtime systems (Scheme, Rust)

Honors & Awards

- Unity & GDC Student Scholarship (2018)
- Indy PopCon Secret Awards: Best Aesthetics (2019)
- IU Game Design Level Up Scholarship (2019)
- Indiana University Founders Scholar (2017 - 2019)

Relevant Skills

Software Engineering

- C / C++, C#, Rust, Python, Scheme
- Graphics systems implementation (Vulkan, OpenGL) and rendering (GLSL, Cg)
- Documentation, testing, and build systems

Game Engines

- Unity (C#, HLSL)
- Godot (C++, GDScript, GLSL)
- Unreal Engine 4 (C++, node-based shaders)

Digital Content Creation

- Substance Designer, Blender, Maya, Houdini

Relevant Independent Projects

- GUI tools for GPU-accelerated authoring of layered 3D noise volumes (Unity, C#, HLSL compute)
- **rnjin**, a Vulkan-based game framework using a custom data-oriented ECS architecture (C++)
- Stylized real-time raytracing framework in the open-source Godot game engine (GLSL)
- Custom 3D rasterizer and display driver written in C for a highly-constrained embedded systems device

Personal / Volunteer Experience

Gamedev@IU – gdiu.org
Founder, Vice President of Programs (2017 - 2019)

- Led structuring and establishment of a student-run game development organization
- Coordinated a 20-person leadership team
- Organized dozens of events including guest speakers, game jams, and workshops

Unity Framework Modules – github.com/rajin-s/UModule
(2018 - present)

- Developed open-source modules to provide extensible implementations of various fundamental game systems in the Unity engine
- Managed documentation of the project, generating wiki pages from modules' source code

Game Development – rajinshankar.com
(2015 - present)

- Developed dozens of small demos and prototypes of game mechanics, visual styles, & behavior systems
- Participated in international and local game jams (Ludum Dare, Global Game Jam)