

Jason Meisel

Game Developer

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OBJECTIVE

To develop technologies that enable meaningful interactive experiences.

SKILLS

- Creating game systems including core engines, graphics, physics, level editors, art pipelines, and AI
- Implementing game content, such as shader effects, character controllers, AI behaviors, and game logic
- Designing game concepts and mechanics through rapid experimentation and iteration
- Debugging native, managed, and graphical applications and integrating with 3rd party libraries and services
- Constructively analyzing development workflow and style, optimizing for flexibility and effectiveness
- Extremely proficient in technologies such as C, C++, C#, DirectX, Cg, Unity, Unreal, Git, and Perforce

PROFESSIONAL GAME DEVELOPMENT EXPERIENCE

Survios – VR Game Engineer (Apr 2017 – Sept 2018)

- Developed features all throughout *Electronauts*, from prototyping to polish and optimization
- Integrated Pure Data real-time music generation system into Unity DSP, optimized for latency and to eliminate audio hiccups
- **Shipped** VR music creation experience *Electronauts* on Windows, Mac, and Playstation 4
- Implemented game logic and AI for *Battlewake*
- Researched and developed crowd rendering plug-in for Unreal (instanced skinned meshes, GPU animation with blending)

Good Mood Creators LLC – Game Programmer (Apr 2015 – Dec 2016)

- Implemented gameplay features and platform integration on the indie game, *Mekazoo*
- Developed game logic in Unity, created editor tools, optimized framerate & load time
- Integrated game and **shipped** on several major platforms, including Xbox One, Playstation 4, and Steam

Subsonic LLC – Co-Founder (May 2011 – Sep 2011)

- Co-wrote a 3D WebGL remake of a 2D Windows game, *SONAR*, at Google's request and funding
- Created 3D graphics engine with bone animation, forward lighting, a custom art pipeline from Blender, glass rendering with screen-space reflections, level environment baking
- Created a 2D physics engine with support for tile-based environments, circular rigid bodies, raycasting, dynamic particles, particle collision detection and resolution; created soundwave physics mechanic
- Improved art pipeline; created and optimized UI elements; wrote gameplay logic
- **Shipped** launch title for Google Chrome Web Store, 2011

SELECTED STUDENT WORKS

Perspective – *Technical Director + Lead Designer (Apr 2011 – Dec 2012)*

- Led development and design of the award-winning 2D/3D experimental puzzle game
- Designed the feel, experience, and flow of the game
- Realized the core mechanic's unique potential through experimentation, evaluation, and iteration
- Wrote all gameplay code, integrated Wwise audio, and implemented the Chromium UI
- Assisted with the design and implementation of the game editor, built with wxWidgets
- Created a 3D DirectX 11 graphics engine; wrote deferred lighting, bloom, physics integration, and custom effects
- HONORS: Speaker, Experimental Gameplay Workshop 2013; Finalist, Technical Excellence, IGF 2013; DigiPen Game of the Year 2012; Over half a million downloads

Nous – *Graphics Programmer + Designer (Apr 2010 – Oct 2011)*

- Designed and implemented original game concept prototypes
- Created game logic scripts in Lua, designed and implemented the boss chase level
- Created a custom 3D graphics engine using DirectX 9 with deferred lighting, normal maps, texture atlasing, depth sorting and billboarding for sprites, text rendering, and an extensible effects pipeline
- Created 3D graphical effects in HLSL, with meta-balls, edge lighting, motion blur, desaturation, bloom, pixelization, distortion, screen glitching effects
- Integrated, extended, and did bug-fixes in the UI library, using first CEGUI, then Gwen
- Created 3D art assets, integrated Audio library (FMOD Ex), wrote screen-capture
- HONORS: Student Showcase Winner, IGF 2012; #2 on PC Gamer's Top Free Games 2011

Other notable work

- Perspective AR prototype, Unity game jam projects, 3D collision detection, SSAO, IK solving, cloth simulation, shadow mapping, spatial partitioning, A*, 3D rasterizers
- *The Y-Front*: ASCII Star Fox clone; *DigiPen Ball-Stars*: Unity party game

SOFTWARE EXPERIENCE

Microsoft Corporation – *Software Engineer (Aug 2013 – Apr 2015)*

- Engineered OneDrive (cloud storage) client applications for Windows, OSX, Xbox 360, Xbox One
- Implemented UX features using Win32, wxWidgets, XAML, and WinJS along with functional tests and telemetry
- Implemented other features as-needed such as a background auto-updater and video streaming integration
- Was designated as the team's C++ expert, taught modern engineering techniques, led code reviews

Microsoft Corporation – *Software Engineer Intern (May 2012 – Aug 2012)*

- Architected SkyDrive client application for Xbox 360, shipped Dec 2012
- Developed UX for all client features, including photo viewing and video streaming

EDUCATION

DigiPen Institute of Technology (*Sept 2009 – Apr 2013*)

- B.S. Computer Science and Real-Time Interactive Simulation