

RICK NAEGELE

Address and phone available upon request • rickenaegele@gmail.com • <http://www.rickenaegele.com>

PROFILE

Accomplished software engineer specializing in object oriented C++ to create high quality and high performance software applications. Extensive background in full life cycle software development operating in an agile environment. Proven track record of delivering complex applications with constantly changing requirements within time and budget limitations.

TECHNICAL SKILLS

Languages:	C++, C#, Java, Python, UNIX shell, sed, awk, XML, HTML
Methodologies:	OOP, Design Patterns, Agile / Scrum, Test Driven Development
Middleware:	DirectX, OpenGL, Unity, Cocos2d-x, XNA, Renderware
Platforms:	Win32/64, Linux, Android, iOS, XBOX, PS2, XBOX 360, PS3
IDE:	Visual Studio, XCode, Eclipse, Visual Slick Edit
Tools:	Jira, Confluence, Perforce, CVS, SVN, Photoshop

PROFESSIONAL EXPERIENCE

STERN PINBALL, INC.

Lead Software Engineer

ELK GROVE VILLAGE, IL

July 2017 – Present

- Led a team of 3-6 software engineers in adding all required gameplay features.
- Delivered shippable game software 3 months earlier than initially scheduled in projects led.
- Implemented game rulesets in C++ to designer specifications.
- Created software for test fixtures that tested playfield mechanism durability.
- Assisted and mentored other Software Engineers on different projects.
- Lead Software Engineer for 2 complete pinball machine projects:

Iron Maiden: Legacy of the Beast (Linux platform) – TWIP / Pinball News – Game of the Year 2018

Jurassic Park (Linux platform) – TWIP – Game of the Year 2019

Avengers: Infinity Quest (Linux platform) – TWIP – Best Rules 2020

SCIENTIFIC GAMES (WMS GAMING)

Principal Software Engineer

CHICAGO, IL

January 2010 – July 2017

- Used MVC pattern to create games with deterministic math model reproducibility.
- Math model written must be able to replay award shows with 100% accurate history playback.
- Debugged applications for memory leaks for soak tests that last well over a week of constant play.
- Used a proprietary 3D engine as well as off the shelf Unity engine to create 3D bonus games.
- Analyzed and acted on packfile memory based on technical guidelines to keep games running at framerate throughout all game events where VRAM could be a bottleneck.
- Implemented code to smoothly move a DBOX motion chair to realistically simulate movement for a dynamic 3D ride shown on the video screen.
- Designed and implemented C++ game code for 6 complete slot machines including:

Willy Wonka (Linux / OpenGL platform) – Best performing slot machine for 2013

Mouse Trap (Linux / OpenGL platform) – High performing stepper slot machine

BeetleJuice (Linux / OpenGL platform) – Completed two months earlier than scheduled

Space Invaders (Windows / Unity platform) – Skill based game (first for Scientific Games)

JARDVARK STUDIOS

Programmer

CHICAGO, IL

January 2012 – February 2015

The Mouth of Madness (iOS)

- Started a side project to develop a mobile game in addition to working a full time job.
- Wrote slashing game mechanic and scoring system for the game.
- Implemented many enemy behaviors using C++ in the Cocos2d-x engine.
- Created an xml based level file parser for the spawn order and difficulty of the game.
- Managed assets for all sprite atlases in the game to support 3 different resolutions.
- This game was downloaded more than 100,000 and was reviewed on Pocket Gamer.

CHEWY SOFTWARE
Senior Software Engineer

CHICAGO, IL
January 2008 – December 2009

Way to Go! Bowling (PC - Windows)

- Investigated feasibility of low cost 3D engines for possible use.
- Wrote accurate technical design documents to deliver to client.
- Created a proprietary game engine based on D3D and D3DX using the fixed function pipeline.
- Implemented all game play elements and achieved an accurate bowling simulation.
- Integrated 3rd party sound library and game play triggers for sounds.
- Wrote approximately 60% of the game's entire codebase.

ELECTRONIC ARTS
Software Engineer II

CHICAGO, IL
August 2005 – November 2007

Def Jam: ICON (XBOX 360, PS3)

- Implemented the camera system for Def Jam: ICON.
- Collaborated closely with art director to get the desired cinematography for the game.
- Created easily tunable camera logic and parameters to aid in fast iteration with art direction.
- Designed and implemented the cut scene cinematic pipeline for character / camera animations.
- Worked with cinematics animators to diagnose and solve animation problems in cut scenes.
- Mentored a new hire on the Def Jam camera system to be able to make productive contributions in a short time.
- Worked with animation engineers to solve animation related pipeline issues within EA's proprietary anim system.

Fight Night Round 3 (XBOX 360, PS2, XBOX)

- Implemented online stat tracking / reporting code.
- Integrated online game mode and UI screens with a shared online library.
- Ensured fulfillment of technical requirements checklists as well as EA guidelines.
- Managed the tight online memory budget for PS2 for the life of the project.

MIDWAY GAMES
Software Engineer

CHICAGO, IL
March 2003 – July 2005

Mortal Kombat: Deception (PS2, XBOX)

- Evaluated the feasibility of using the UIX plug-in for an XBOX Live screen solution.
- Ported XBOX Live screen functionality from MLB Slugfest to MK: Deception engine.
- Implemented XBOX Live voice chat and voice messaging.
- Ported PS2 screen control functionality from screen engine releases to the MK engine.
- Implemented localization support for XBOX Live screens.
- Ensured compliance with XBOX TCR of Voice Chat / Voice Messaging / Friend Requests / Game Invites.

NBA Ballers (PS2, XBOX)

- Implemented the TV Tournament and Rags to Riches game modes.
- Implemented the memory card (PS2) and hard drive (XBOX) saving / loading
- Set up an automated nightly user interface export and art build using Midway proprietary tools.

NuFX
Software Engineer

HOFFMAN ESTATES, IL
August 2000 - February 2003

NCAA March Madness 2002 & 2003 (PS2)

- Implemented a majority of the Dynasty game mode and UI screens.
- Helped implement Season game mode and UI screens.
- Adapted the NBA Live rookie generation code to generate new recruits for college dynasty mode.
- Created an automated build process for use in making daily playable builds on DVD.
- Maintained the various game database tables by adding fields required by myself or other users.

EDUCATION

BS, COMPUTER SCIENCE
Northern Illinois University
cum laude

MAY 1999
DeKalb, IL