

Joel Davis

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Experience

IOS/GRAPHICS CONTRACTING; BERKELEY, CA – DEC 2015 - PRESENT

Client work includes:

- Chance Agency - Lead Programmer for NeoCab game (<https://neocabgame.com/>)
- Gallium - Developed Graphics framework, shader/particle editor, gameplay prototypes and significant app features. (Obj-C, SpriteKit, SceneKit, GLES) Custom Terrain engine and ECS blob/spring effect system, gameplay and graphics systems (Unity, C#, C++)
- Unreleased AR character animation demo and prototype (iOS/Unity).
- mappable.com - OpenGL ES, networking, and major UIKit work (Obj-C, C++, OpenGL)
- Madefire - Helped develop GearVR motion book viewer for ComicCon NYC announce.

SENIOR IOS SOFTWARE ENGR., SMULE; SAN FRANCISCO, CA – 2011 - 2015

Graphics and gameplay programming, custom UI and general app development for iOS. Implemented major features for Sing! Karaoke, Magic Piano and Guitar. Included video processing work and unreleased iOS game engine. (Obj-C, C++, Python, OpenGL)

FOUNDER, TAPNIK; BERKELEY, CA – 2009 - PRESENT

Hobby business. iOS apps for creative writing and games for iOS, tvOS, and WebGL. Released "The Brainstormer", "Planet Minesweeper", "Droppyship", "Still Pond". Released VR Minigame: "Alien Construction Skills" (Obj-C, Swift, C++, OpenGL, WebGL, Unity)

GRAPHICS SOFTWARE ENGR. TIPPETT STUDIO; BERKELEY, CA – 2007-2011

Develop Texture Painting tool used on feature film VFX. Developed and supported Maya plugins, graphics and pipeline tools. Implemented public website. (C++, Python, OpenGL)

SOFTWARE ENGR. II, ELECTRONIC ARTS, REDWOOD SHORES, CA – 2004-2007

Maintain and improve mental ray game lighting pipeline. Implemented real-time shadows and lighting for xbox 360 on shipping games. Many tools and utilities. Worked with lighters to author and troubleshoot runtime and offline lighting. (C++, HLSL, MEL, Python)

R&D SOFTWARE ENGR., INDUSTRIAL LIGHT + MAGIC, SAN RAFAEL, CA – 1999 - 2004

Developed lighting and texture painting software. Maintain/improve render pipeline tools. Shaders and scene generation. Troubleshoot large VFX shots. (C++, Python, OpenGL)

SOFTWARE ENGR., ANIMATION SCIENCE, SUNNYVALE, CA – 1998-1999

Crowd and particle system plugins. Adaptive terrain rendering. (C++, OpenGL)

SOFTWARE ENGR., WALT DISNEY FEATURE ANIMATION FLORIDA, ORLANDO, FL – 1996-1997

Develop software for large crowd scenes for animated feature film "Mulan". (Tcl, C++, OpenGL)

INSTITUTE FOR SIMULATION AND TRAINING, ORLANDO, FL – 1996-1997

Virtual reality software for usability research and military simulation. Terrain reasoning, VR interface design and AI. (C++, OpenGL, Inventor)

Education

University of Central Florida, Orlando FL, 1998

B.S. Computer Science, B.A. Creative Writing.

Apps, Film and Game Credits

- ProxiAI - Gallium Studios - Releasing 2021 (iOS, PC, Mac)
- NeoCab - Chance Agency - 2019 (iOS, PC, Mac, Switch)
- NaNoGenMo 2016 - "PulpMill" fantasy novel generator.
- mappable.com iOS App (Testflight Beta)
- Sing! Karaoke, Magic Piano, Guitar by Smule (Top ranked music apps)
- Twilight Saga: Eclipse (Summit, 2010) - Software R&D
- The Mummy Returns (Universal, 2001) - Software Development
- Mulan (Disney, 1998) - Software Development
- Work In Progress (ILM Digital Short, 2000) - Software Development
- The Godfather, EA 2006 (XBox 360, PS2, PS3, Wii, XBox)
- James Bond: From Russia With Love, EA 2005 (Xbox, PS2)

Published Work & Awards

- "Octree Textures", David Benson and Joel Davis, [Proceedings of ACM Siggraph](#), 2002
- 1st overall (Fall 2015) and "Best Use of Content" (2014) in Smule Hackathons
- Volunteered to create web app to manage PTA afterschool classes at Malcolm X Elementary, handled over \$100k/yr signups.
- Speaker, [digi.lit 2014](#) by LitQuake. "The Brainstormer and Write Attack"
- "Bed", Screenplay co-written w/Cath LeCouter, Sundance/Sloan 2009 Dev. Award, 2009
- NYCMM Flash Fiction contest 2010, 4th place nationally.
- Avid Participant in LudumDare 48 hour game jams for 15+ years, and others.
- UCF/ACM Programming Team: Participated in five regionals and three internationals.
- IBM/ACM Quest for Java 1997: 2nd place nationally for Perlin-texture applet.
- "Toy Scouts" 1996 President: Student VR research group featured at Siggraph 94, 95
- Upsilon Phi Epsilon Computer Science Honor Society
- VES Visual Effects Society, Member