THIBAUT DESPOULAIN

Software Engineer - 3D Graphics, UI/UX, Tooling.

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🔗 http://bkcore.com

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📍 San Francisco Bay Area

EXPERIENCE

Software Engineer - 3D Graphics, Tools.

Artillery Games, Inc.

📅 Mar 2013 - ongoing 📍 Palo Alto, CA, USA

Developed and launched "Guardians of Atlas", a 3D Competitive Action-RTS for PC/Mac and its game engine, alongside WebGL-based tools for artists. Started as an intern (6 month) then converted to full-time.

Technologies involved: WebGL/OpenGL, GLSL, CoffeeScript/JavaScript, C++, Emscripten, React, Electron.

Achievements:
- Designed multi-threaded engine and 3D renderer (with Mark Logan).
- Built shading and compositing pipeline, from texturing to lighting to post processing.
- Built VFX engine and editor, used by our artists to design and display visual effects for units, spells, and destruction.
- Built character animation system featuring GPU skinning, interpolation and dual-quaternions, with a data-driven animation graph interface giving artists direct control over sequence flows and VFX hooks.
- Built initial prototype of map editor that was used by the entire art team as well as the game-design team through the project.
- Designed (with help from an external UI designer) and implemented entire in-game UI, from deck building to in-game HUDs and menus.
- Designed and implemented (with Steven Arcangeli) out-game launcher and chat client using React and Electron.
- Helped Art Director and Art Lead build and iterate on the look and feel of the in-game world and characters, while working closely with the game-design team to maximize readability and highlight gameplay.

Software Engineer Intern - WebGL

KA-RA

📅 Aug 2011 - Jan 2012 📍 Schiltigheim, Alsace, France

Developed a prototype Web Application for sharing and viewing of 3D models for Architecture (R&D).

Technologies involved: WebGL, JavaScript, HTML5/CSS3, PHP, Python.

Achievements:
- Built custom shaders for lighting and post-processing using bleeding edge WebGL technology.
- Built Youtube-like web viewer interface for 3D content (Time of Day, Fly-through, Render modes).
- Built web editor interface allowing architects to import, customize and pre-visualize their 3D models.
- Built simple PHP5 backend to manage users, and 3D models.

SUMMARY

I'm a software and graphics engineer, specializing in native and web-oriented 2D and 3D application development. I am also keen on graphic design and UI/UX development. This dual competence allows me to have a different point of view than most developers, enhancing my understanding of interactions between artists, designers and programmers.

PERSONAL PROJECT

HexGL - WebGL Racing Game

HexGL is a fast-paced, futuristic racing game playable online in 3D, directly inside a browser.

Started HexGL from scratch in the summer of 2012 using WebGL and Three.js.

Project website: http://hexgl.bkcore.com/

EDUCATION

Master's degree in Computer Engineering (CS)

University of Technology of Belfort-Montbéliard

📅 Sep 2008 - Sep 2013 📍 Belfort, France

- Lead the student's photography club for multiple years.

LANGUAGES

English ●●●●●

French ●●●●●