

## Professional Profile

Team leader and senior multi-platform engineer with 14+ years of professional engineering experience on projects from the simulation and gaming industries. Led teams on both Windows and macOS projects. Known for excellent technical direction, problem solving, teamwork, and communication skills. Veteran of the full software development lifecycle, from proposal to public release, on a commercial software application with millions of daily active users.

## Education

Bachelor of Science in Computer Science – University of Central Florida (2006)

## Skills

<b>Languages:</b>	C, C++, C#, C++/CLR, JavaScript (ES6, ES2017), PHP
<b>Platforms:</b>	Windows (Win32/COM), macOS (10.7+), node.js (12.x), React.js (16.x)
<b>APIs:</b>	Qt Framework (4.x/5.x), .NET, CoreFoundation, openSSL
<b>Dev Tools:</b>	Microsoft Visual Studio, VS Code, XCode, Perforce, Subversion, Git, Gitlab, NANT, Nullsoft Installer
<b>Graphics:</b>	OpenGL, GLSL
<b>GIS/Simulation:</b>	TerraVista and ArcGIS plugin development, Spatial Reference/Projection Libraries, Virtual and Constructive Simulation, VBS3, VBS4, VBS Blue IG, Common Image Generator Interface (CIGI), MathGeoLib
<b>Project Management:</b>	Team leadership, proposals, estimation, planning, customer support
<b>Other:</b>	Aviation Domain Knowledge (FAA Certificated Flight Instructor ASEL/Instrument), Cartographic Domain Knowledge (NGA map products, TLM50/100, JOG-A), Cryptographic Domain Knowledge

## Professional Experience

### Bohemia Interactive Simulations

Orlando, FL

Software Engineer Manager – Lead of SDK and IG Development

6/2017 - Present

- Product owner for the VBS IG and VBS Simulation SDKs, powerful C-language-based commercial APIs used widely by simulation developers to extend and build upon the Virtual Battlespace (VBS) family of game engine-based simulation products. Responsible for developing SDK product roadmap and vision with senior stakeholders for the widely-fielded VBS3 application, and the newly-released VBS4 and VBS Blue IG virtual desktop trainer and image generator applications based on the VBS Blue whole-earth rendering engine.
- Team lead of the SDK and VR/AR Development Teams, with 8 direct reports, including mentoring and developing engineers into future team leaders. Cooperated on projects with other international-based teams. Managed all aspects of SDK development, including public API technical design, development, automated testing, documentation, delivery, and support.

### GameSim

Orlando, FL

Senior Software Engineer – EA Origin

9/2011 – 6/2017

- Product owner for multiple pieces of core technology on a large distributed team. Influential and high-profile leader driving the technical direction of the Origin application. Had 4 direct engineering reports, and gave technical training presentations.
- Team lead and senior developer for Origin Mac. Led team from initial proposal through public release in porting a very large existing Windows application to OSX. Rewrote many subsystems to be cross-platform, created a new build and deployment system, and designed a new backend infrastructure to support multiple platforms.
- Designed and implemented a new modular cross-platform downloading architecture based on Qt. Debugged and supported live issues on a public installed base of several million end-user client installations across both PC and Mac.
- Designed and implemented a progressive game installation feature. Worked at BioWare Canada to integrate it into EA's Frostbite game engine.
- Redesigned the Origin installer and self-updater system to be a cross-platform Qt application. Enabled the use of modern web UI (HTML/CSS/JS), telemetry, and more robust error handling. Created back-end testing tools using node.js.

### CAE USA, Inc.

Orlando, FL

Software/Systems Engineer – SE Core DVED Program

1/2007 - 9/2011

- Team leader and senior software engineer for a large US Army simulation data generation project. Primary maintainer of the SEE API/SDK, which was widely used on other government programs to build plugins to the DVED system.

### Terrain Experts, Inc. (currently Presagis)

Orlando, FL

Software Engineer – TerraVista Application Developer

9/2006 – 12/2006

### University of Central Florida

Orlando, FL

Intern – Computer Vision Laboratory

2/2006 – 9/2006