John Calsbeek

CONTACT INFORMATION	8500 148th Ave. NE Apt. V3073 Redmond, Washington 98052	home: +1 515 989 1442 e-mail: john.calsbeek@gmail.com web: http://www.johncalsbeek.com/

OBJECTIVE

An internship or full-time position working on the graphics engine or supporting systems for games or other real-time simulations.

TEAM PROJECT EXPERIENCE

Hook, first-person platformer

Technical Director   **September 2011 – present**

Developed and debugged a data-oriented C++ game engine, as well as a task scheduler, message dispatcher, resource manager, run-time reflection layer, Lua integration layer, Direct3D 11 graphics engine, Cg shader platform, skeletal animation engine, Autodesk FBX importer, linear algebra library, and Windows platform interface using Microsoft Visual Studio 2010. Supported a team consisting of four other programmers and three artists. Established coding guidelines and art pipeline practices.

CUB3, first-person space combat sim

Technical Director   **January – April 2011**

Developed and debugged a C++ game engine using a component-based object model, as well as serialization, messaging, linear algebra, UI, and Windows platform layers using Microsoft Visual Studio 2010. Supported a team consisting of two other programmers.

SELECTED SKILLS AND INTERESTS

- Advanced understanding of C, C++, Objective-C, and Lua
- Experienced with Visual Studio, Xcode, Direct3D, OpenGL, Win32, and Cocoa
- Strong background in data structures, algorithms, animation, geometry, rendering techniques, splines, linear algebra, and multivariate calculus
- Proficient with Subversion, Git, Java, GLSL, Cg, HTML, CSS, and shell scripting
- Familiar with .NET, MFC, TCP/UDP networking, relational databases, and POSIX
- Interested in rigid body dynamics, data-oriented design, parallelism, lock-free programming, SIMD programming, cache optimization, compilers, and procedural content generation

EDUCATION

DigiPen Institute of Technology, Redmond, Washington

Master of Science in Computer Science   **September 2010 – present**

- Expected graduation: December 2012
- GPA: 3.77/4.00
- Pursuing a master's thesis on implicit methods for procedurally generating interactive worlds
- Student assistant for mid-level mathematics courses

Northwestern College, Orange City, Iowa

Bachelor of Arts in Computer Science   **August 2006 – May 2010**

- GPA: 3.77/4.00 (3.97/4.00 in computer science)
- Academic minors: mathematics, English literature
- Student assistant for four years
- Tutored for entry- and mid-level computer science courses for four years
- Honors program graduate

PROFESSIONAL EXPERIENCE

SALT Solutions, Des Moines, Iowa

Web/Desktop Programmer   **January 2007 – September 2010**

Developed, maintained, and optimized customer-facing web applications and internal tools using ASP.NET and Microsoft SQL Server.

HONORS AND AWARDS

Recipient, Faculty Honors, Northwestern College, 2010

Recipient, Outstanding Graduating Senior Award (Computer Science), Northwestern College, 2010

Honorable Mention, ACM International Collegiate Programming Contest World Finals, 2010, 2009