



Kenneth Riddile

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Education

The University of Texas at Dallas, Richardson, Texas

Bachelor of Science in Computer Science, Cum Laude Honors, Graduate of the Collegium V Honors Program

Overall GPA: 3.7

Graduated May 2006

Highlights

- Extensive software development experience using a variety of languages on multiple platforms
- Enjoys designing software just as much as implementing it
- Excellent debugging and troubleshooting skills
- Strong high and low-level optimization ability
- Makes pragmatic decisions about when to use what
- Quickly learns new things
- Maintains an open mind

Technical Skills

Languages

C, C++, C++0x, C#, Java, Python, Lua, PHP, GLSL, HTML/CSS, JavaScript, Bash...

Libraries

STL, Boost, TBB, OpenGL, DirectX, OpenAL, Eigen...

Platforms

Windows, Linux, iOS, Android, Symbian, N-Gage...

Tools/Software

Visual Studio, XCode, Eclipse, GCC, Unity, VTune, CMake, SVN, Git, Mercurial, NSIS, MySQL, SQLite, Apache, Photoshop...

Methodologies

Object-Oriented Design, Data-Oriented Design, Component-Based Design, Generic Programming, Template Metaprogramming, Design Patterns, Dependency Inversion, Test-Driven Development, Agile/Scrum...

Professional Projects

Construction Worker Pre-Apprenticeship Training, Etcetera Edutainment
Software Engineer

2011-Present

- Realistic 3D role-playing game implemented in Unity and C#
- Sole programmer on one of Etcetera's most aggressive Unity projects to date

ImPACT Screening Assessment Tool (ImSAT), ImPACT Applications Inc.
Independent Contractor / Software Engineer

2011-Present

- Concussion screening app for Android tablets
- Configurable for both individual and clinical users
- Features PDF exporting, Cloud Print support, and in-app purchasing

ImPACT Concussion Awareness Tool (ImCAT), ImPACT Applications Inc.
Independent Contractor / Software Engineer

2011

- Concussion awareness app for Android phones and tablets distributed in partnership with Dick's Sporting Goods as part of their PACE program
- App was completed satisfactorily in a little over a week

<p>Sideline, ImPACT Applications Inc.</p> <p>Independent Contractor / Software Engineer</p> <ul style="list-style-type: none"> • Concussion testing app for Android phones and tablets • Targeted at athletic trainers needing to make a quick evaluation prior to more extensive testing • Syncs and posts to a remote database using a REST API • Both phone and tablet versions were completed well ahead of schedule 	<p>2011</p>
<p>Wegmans Cashier Training, Etcetera Edutainment</p> <p>Software Engineer</p> <ul style="list-style-type: none"> • SCORM compliant, browser-based training game implemented in Unity and C# • Reused much of the data-driven framework from Slips, Trips, and Falls 	<p>2011</p>
<p>Slips, Trips, and Falls, Etcetera Edutainment</p> <p>Software Engineer</p> <ul style="list-style-type: none"> • SCORM compliant, browser-based training game implemented in Unity and C# • Collaborated with other disciplines on game and user interface design • Responsible for 100% of the project's software design and implementation • Created data-driven framework that allows rapid content creation and modification by non-programmers 	<p>2011</p>
<p>vHuP, Etcetera Edutainment</p> <p>Software Engineer</p> <ul style="list-style-type: none"> • 3D game that teaches application of Human Performance Tools to workers in the nuclear industry • Collaborated with other disciplines on game and user interface design • Created build system using CMake • Designed and implemented a type-safe messaging system in C++ that was integral to the game's implementation • Designed and implemented an outboard, component-based entity system in C++ • Contributed greatly to development of the rendering system, including particle system support • Performed ~50% of the game logic programming 	<p>2010-2011</p>
<p>Electrical Safety Sim: Low Voltage, Etcetera Edutainment</p> <p>Software Engineer</p> <ul style="list-style-type: none"> • 3D game that teaches proper safety procedures to electrical workers based on NFPA and OSHA regulations • Maintained proprietary C++ engine based on the needs of game logic programmers working in Python • Created automated build process using Python and NSIS • Added proxy configuration support • Performed ~25% of the game logic programming 	<p>2009-2010</p>
<p>Forklift Safety Sim, Etcetera Edutainment</p> <p>Software Engineer</p> <ul style="list-style-type: none"> • 3D game that teaches proper safety procedures to forklift operators based on OSHA regulations • Ported game to latest version of Etcetera's proprietary engine • Added support for online communication with Etcetera's Safety Training Center • Added low and high-level support for numerous steering wheel controllers • Created automated build process using Python and NSIS • Performs ongoing maintenance using C++ and Lua 	<p>2009-2010</p>
<p>Safety Training Center, Etcetera Edutainment</p> <p>Software Engineer</p> <ul style="list-style-type: none"> • Public-facing web application for provisioning licenses for Etcetera products and tracking training results • Maintains and extends large Java/PHP codebase created by a third-party contractor • Directly supports internal and external users 	<p>2009-2010</p>
<p>Fortress Luna, Red Sword Studios</p> <p>Co-Founder / Software Engineer</p> <ul style="list-style-type: none"> • iPhone game combining elements of Asteroids and Missile Command • Appeared in the App Store "What's Hot" list • Reused the codebase I developed for Gradient 	<p>2009</p>

<p>Gradient, Red Sword Studios Co-Founder / Software Engineer</p> <ul style="list-style-type: none"> • iPhone puzzle game based on gravity physics • Personally created most of Red Sword's reusable C++ codebase, including rendering, particles, messaging, GUI, audio, resource management, scripting, and platform abstraction support • Created an interactive particle editor using wxWidgets • Created resource and build packaging scripts using C++ and CMake 	2009
<p>Crusades, Vizual F/X Studios Software Engineer</p> <ul style="list-style-type: none"> • Sci-Fi MMORPG with ambitious technical requirements • Involved in all aspects of the game's technical design • Evaluated numerous middleware products and gave my opinions to management • Created platform abstraction component to facilitate the game's multi-platform requirements • Modified SpeedTree API and shaders to work with spherical terrain • Company lost funding and shut down prior to product completion due to the economic downturn 	2008-2009
<p>Space Impact: Kappa Base, Method Solutions Software Engineer</p> <ul style="list-style-type: none"> • First-party vertical space shooter for N-Gage 2.0 • Became one of the best selling mobile games in Europe • Performed a major refactoring of the game's behavior system, resulting in increased performance • Frequently communicated with N-Gage developers at Nokia regarding SDK-related issues • Enhanced the game's scriptable GUI system • Integrated a custom networking API and added numerous online multiplayer features including leader boards, user registration, clans, and in-game chat 	2007-2008
<p>Car Stars, Method Solutions Software Engineer</p> <ul style="list-style-type: none"> • First-party 3D car racing title for N-Gage 2.0 • Created an interactive particle editor using wxWidgets and the in-game software renderer • Implemented view-frustum culling using the popular "radar" approach • Created in-game user interfaces • Implemented a scriptable trigger system 	2007
<p>RAD9 Platform, IHSOFT Inc. Software Engineer</p> <ul style="list-style-type: none"> • Extensible hardware abstraction layer and game engine for video slot machines and other casino games • Implemented regulatory-compliant game machine audit and setup screens using C++ and the Win32 API • Developed a 2D software renderer for environments without hardware acceleration • Created a customized Windows XP Embedded build for booting casino game hardware from flash media • Wrote multiple deployed slot machine games on the platform 	2006-2007
<p>Large-Scale Data Migration, Bell Helicopter IT Intern</p> <ul style="list-style-type: none"> • Migrated decades of CADAM drawings from mainframe storage to Unix file systems prior to mainframe sunset • Developed an intranet-based process for retrieving these CADAM drawings and converting them to CATIA format on-demand using AIX 5.2, HTMLDB, Oracle, C++, and KornShell scripts • Supported users at multiple Bell facilities 	2006
<p>Bell/Boeing Automated Data Transfer, Bell Helicopter IT Intern</p> <ul style="list-style-type: none"> • Secure, automated process for the transfer and conversion of CAD data between Bell and Boeing • Drastically increased efficiency of the V-22 Osprey project • Designed and implemented the entire process • Coordinated with contacts in both companies regarding firewall and server configuration • Wrote scripts to automatically convert incoming data to formats useable at Bell 	2005

Personal Projects

Comic Hound

2011

- Comic book want-list management app for collectors with Android devices
- Consists of a simple interface over an SQLite database
- Developed initial release in three days

CMP

2010

- Official Android app of the Civilian Marksmanship Program
- Automatically scores a variety of shooting sports and stores match data for later reference
- Learned the Android SDK and developed the initial release in a week
- Extended app to support multiple sports and match formats
- Added sophisticated search functionality
- Responds promptly to user questions and feature requests

Open Source Contributions

- Contributed numerous patches to the Boost libraries
- Submitted multiple peer reviews for potential Boost libraries
- Exception safety, STL compatibility, and MSVC compatibility patches for the Eigen linear algebra library
- Many programming-related blog posts and tutorials
- Actively participates on many open source and development-related mailing lists

Extra-Curricular Interests

- Skeet chairman at Pitcairn-Monroeville Sportsmen's Club in North Versailles, PA

References

Available upon request