

Jeremy Kelly

Software development
Web / desktop / embedded

www.antefix-consulting.com
sales@antefix-consulting.com
Des Moines, IA

Expertise

- **Web:** Detailed knowledge of ASP.NET Core and JavaScript. Experience with HTML5 and CSS. Broad database experience, including database design and SQL.
- **Desktop:** Experience with numerous UI frameworks, including WPF/XAML and Windows Forms, plus low-level Win32 API. Much experience designing custom controls and custom UI frameworks. Strong C# and C++.
- **Embedded:** More than a decade of work on embedded and mobile platforms, including Android NDK and SDK, Windows CE, Linux, and PalmOS. Extensive experience with touchscreen UI design, cross-platform development, and optimization for devices with performance constraints.
- **Other:** Extensive object-oriented design expertise in multiple languages. Experience with Java, OpenGL, multithreaded development, socket programming, audio development, DSP, and genetic algorithms. Superior planning, writing, and presenting skills.

Work Experience

- **Independent Software Contractor** **Jun 2013 - Present**
Antefix Consulting LLC, Des Moines, Iowa
Provider of contract development services. Created Android test apps for device assembly line, with numerous automated and interactive hardware tests, plus wireless reporting to result server. Developed geometry library and genetic algorithm used to plan directional drilling projects, plus many unit tests. Extensive bug-fixing, refactoring, and internationalization of legacy apps. Built complex Windows Forms control with full-featured console-style output. Extensive work with C#, C++, Managed C++, WPF/XAML, .NET, and Git. Some work with Java, Android SDK, Windows CE, and Jenkins. More information at www.antefix-consulting.com.
- **Independent Software Developer** **Jan 2012 - Jun 2013**
Anthemion Industries, Des Moines, Iowa
Developed music sequencer and synthesizer for Android devices. Created full-featured cross-platform UI framework for touchscreen devices, extensible real-time synthesis engine with multiple synthesis and effect types, and innovative step sequencer with support for polyrhythms, arbitrary time signatures, flexible note ties and bends, and automatic transposition. Extensive work with C++, Android NDK, Win32 API, OpenGL ES, OpenSL, and audio DSP. Some work with Android SDK. More information at www.syntheogen.com.
- **Computer Engineer** **Mar 2010 - Jan 2012**
HandEra, Urbandale, Iowa
Applications developer for company providing engineering and ODM services. Solely implemented cross-platform UI for in-car media device with satellite TV, DVD and CD player, iPhone/iPod connectivity, and local media browser. Developed software for headless set-top TV appliance, hardware test apps, and cross-platform framework for building console test applications. Extensive work with C++, Win32 API, and Windows CE. Some work with C#, OpenGL ES, COM, Qt, and Linux.

- **Sr. Embedded Software Engineer / Contractor** **Jan 2009 - Jul 2009**
John Deere Intelligent Vehicle Systems, Urbandale, Iowa
Worked with large team on in-vehicle embedded applications. Developed extensible on-screen keyboard with foreign language support. Worked with C++ and Windows CE.
- **Software Engineer** **Apr 2007 - Dec 2008**
Cummins-Allison, Mount Prospect, Illinois
Part of two-person team that developed front end for new paper currency scanner. Designed and implemented lightweight transaction database with extensible query system, real-time bill image transfer system over TCP/IP, flexible metadata export system implementing numerous legacy protocols over serial connection. Solely responsible for Windows CE platform development with Platform Builder. Assisted with ASP.NET app used to manage scanned data. Extensive work with C++, C#, Win32 API, and Windows CE.
- **Software Engineer** **Aug 2000 - Nov 2006**
Peapod, Skokie, Illinois
Mobile and desktop developer for fulfillment team at pioneering web grocer. Created suite of mobile applications used to fulfill over 1000 orders per day, including picking application, quality control and inventory management apps, and launcher. Designed and implemented numerous desktop apps, including scriptable server emulator, server stress-testing tool, production monitoring utilities, and fulfillment reports. Collaborated on mobile web app used to manage inventory. Performed emergency port to new mobile OS, allowing facility to open on schedule. Extensive work with C++, MFC, Delphi, sockets, barcode scan engines, SQL, Windows Mobile, and PalmOS. Some work with Java, Spring, JSP, HTML, and CSS.

Education

- **Bachelor of Science, Economics** **May 2004**
University of Iowa, Iowa City, Iowa

Other Experience

- **Hanikamu**
github.com/anthemion-org/hanikamu
A free, decentralized, open-source document-sharing app for the web. A work in progress using C#, ASP.NET Core, MariaDB, Dapper, and Bootstrap.
- **Ogle**
github.com/anthemion-org/ogle
A free, open-source word-finding game for Windows. Features a clever search algorithm that matches all possible words in a five-by-five letter grid against an 80,000-word lexicon in under 20ms. Built with C# and Windows Forms.
- **www.anthemion.org**
Personal site with detailed notes covering **JavaScript**, **C#**, **C++**, **physics**, **DSP**, **Mathematica**, and more, plus open source software, music, and other projects.