

David Romig, Jr.

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Career Summary

- Professions:
 - Senior Software Engineer
 - Platform Engineer
 - Senior UI/UX Engineer
 - Systems and Network Administrator
- Industries:
 - Games Industry
 - Web Site Development
 - Cellular and WiFi/BT Testing
- Security Clearance:
 - Management Information Systems
 - Disaster Simulation
 - Information Technology
 - U.S. Secret (Issued December, 2009)

Skills

Language and API Technologies

• C	<i>Expert</i>	• .NET/VB/Visual C++	<i>Strong</i>	• ARM/Thumb Assembly	<i>Moderate</i>
• HTML/XHTML	<i>Expert</i>	• Python	<i>Strong</i>	• Boost	<i>Moderate</i>
• JavaScript/ECMAScript	<i>Expert</i>	• jQuery/jQuery UI	<i>Strong</i>	• Lua/Lua API	<i>Moderate</i>
• DHTML/AJAX	<i>Expert</i>	• RPGIII/RPGLE	<i>Strong</i>	• MSBuild	<i>Moderate</i>
• PHP	<i>Expert</i>	• TCL/Tk	<i>Strong</i>	• PS2 VU Assembly	<i>Moderate</i>
• JSON	<i>Expert</i>	• Crystal Reports	<i>Strong</i>	• QML	<i>Moderate</i>
• Sunplus ISA Assembly	<i>Expert</i>	• MATLAB/SIMULINK	<i>Moderate</i>	• Windows Batch	<i>Moderate</i>
• C++/OOP	<i>Very Strong</i>	• sh/bash/ksh Scripting	<i>Moderate</i>	• Xcode	<i>Moderate</i>
• BASIC/QuickBASIC	<i>Very Strong</i>	• CLP (AS400)	<i>Moderate</i>	• MFC	<i>Light</i>
• CSS	<i>Very Strong</i>	• CGI	<i>Moderate</i>	• AppleScript	<i>Light</i>
• XML	<i>Very Strong</i>	• LZMA/LZW/Zip	<i>Moderate</i>	• CMS	<i>Light</i>
• SQL/MySQL/SQLite	<i>Very Strong</i>	• Makefile	<i>Moderate</i>	• CURL	<i>Light</i>
• 6502/6510 Assembly	<i>Very Strong</i>	• MIPS Assembly	<i>Moderate</i>	• DirectX	<i>Light</i>
• Qt	<i>Strong</i>	• OpenGL/OpenGL API	<i>Moderate</i>	• Java	<i>Light</i>
• ImageMagick	<i>Strong</i>	• PERL/Tk	<i>Moderate</i>	• Objective C	<i>Light</i>

General Abilities

• Mathematics	<i>Very Strong</i>	• Tool Design	<i>Very Strong</i>	• Network Administration	<i>Strong</i>
• Software Testing	<i>Very Strong</i>	• Sketch Artist	<i>Strong</i>	• Game/Gameplay Design	<i>Strong</i>
• User Interface Design	<i>Very Strong</i>	• Graphical Layout	<i>Strong</i>	• Apache	<i>Moderate</i>
• Algorithm Design	<i>Very Strong</i>	• Controller Design	<i>Strong</i>	• Firewall Design	<i>Moderate</i>
• Application Design	<i>Very Strong</i>	• Network Management	<i>Strong</i>	• DNS Configuration	<i>Moderate</i>
• API Design	<i>Very Strong</i>	• Physics Modeling	<i>Strong</i>	• Windows NT Admin.	<i>Moderate</i>
• Linux Administration	<i>Very Strong</i>	• System Modeling	<i>Strong</i>	• Auto. Build Systems	<i>Light</i>

Platform Programming Experience

• Linux/Unix	<i>Very Strong</i>	• Sunplus SPG2xx SPG290	<i>Strong</i>	• Gameboy Advance	<i>Moderate</i>
• Commodore 64	<i>Very Strong</i>	• Gameboy DS	<i>Strong</i>	• osCommerce	<i>Moderate</i>
• Web	<i>Very Strong</i>	• Wii	<i>Strong</i>	• Android	<i>Light</i>
• Playstation 2	<i>Very Strong</i>	• i5/AS400/System 38	<i>Moderate</i>	• Bloomberg Terminal	<i>Light</i>
• Windows	<i>Very Strong</i>	• MacOS Classic	<i>Moderate</i>	• iPhone	<i>Light</i>
• MacOS X	<i>Strong</i>	• Playstation	<i>Moderate</i>	• X-Box	<i>Light</i>

Experience

• **Trion Worlds, Inc.** – Redwood City, California

June, 2014 ~ February, 2017

Platform Engineer

- **Glyph:** Platform Launcher for Login/Authorization and Downloading, Decompression, and Patching of Multiple Games
 - Updated/improved Glyph on Windows, MacOS X in C/C++, Qt, QML, JavaScript, CURL, LZMA, Zip, company STL and common libraries.
 - Updated company STL and common libs on Windows, MacOS X in C/C++ including STL, text manipulation, memory & process management.
 - Set up process to rebuild Qt and OpenSSL from source to target Windows XP on Windows using VS 2013 in Windows Batch, Makefile.
 - Reworked project files and install builder for more efficient build on Windows, MacOS X in MSBuild, Windows batch, AppleScript, bash.
 - Updated company build server client for Windows and created build of and automating of MacOS X builds in Python.
 - Updated and built existing mobile authorization apps on iPhone and Android in Objective C and Java.

• **LitePoint** (a division of Teradyne) – Sunnyvale, California

May, 2012 ~ May, 2014

Senior Software/UI/UX Engineer

- **Test Plan Editor:** Cellular and WiFi/BT Test Plan Creation and Editing Software Tool
 - Wrote from scratch based on UI layout request and existing file format in JavaScript, jQuery, jQuery UI, HTML, CSS, QtWebKit, C/C++, Qt.
 - Created API to access company SDK (in C/C++) through JavaScript/jQuery using QtWebKit with a HTTP request fallback.
 - Developed future file format and created module to convert file formats in Python.
 - Contributed to improvement of company SDK and plug-in modules in C/C++, Qt, JSON, and Python.
 - Learned about RF testing of cellular and WiFi/Bluetooth devices.

• **Contracting / Self-Employment**

March, 2010 ~ December, 2012

- **Bloomberg LP:** Senior Software Engineer; August, 2011 ~ October, 2011
 - Worked in Trade Order Management Systems fixing back-end bugs in C/C++, JavaScript, and ksh.
 - Wrote Bloomberg terminal command to schedule and delete trade book tickets in C/C++, JavaScript, ksh, and SQL.
- **Swann Costume Shop:** Lead Software Engineer; June, 2011 ~ July, 2011
 - Wrote customer and inventory database to track rentals and charge late fees in TCL/Tk and SQLite.
- **FlipSwitch Solutions:** Lead Software Engineer; February, 2011 ~ April, 2011
 - Wrote custom course management and scheduling with user registration in PHP, HTML, and CSS.

- **LaFrance Corporation:** Senior Software Engineer; *July, 2010 ~ December, 2010*
 - Rewrote product upload tool adding robust error handling in Visual Basic .NET.
 - Finished osCommerce-based website largely in PHP, MySQL, HTML, CSS, and JavaScript including:
 - FedEx/UPS shipping API with label printing in object-oriented PHP, VB .NET and XML.
 - Interactive product view and searching that used JavaScript and JSON AJAX library.
- **Test & Evaluation Solutions – Warrenton, Virginia** *July, 2009 ~ December, 2009*
Senior Software Engineer
 - **Integrated Recovery Model:** Ship Disaster Recovery Modeling and Simulation for PC, Mac, and Linux
 - Rewrote and updated ship deck and compartment modeling program in TCL/Tk and SQLite.
 - Learned and participated in discussions about improving existing SQLite schema for ship data.
 - Wrote data conversion scripts.
 - Applied for and received Secret Level U.S. Security Clearance.
- **Barking Lizards Technologies – Richardson, Texas** *January, 2008 ~ August, 2008*
Senior Software Engineer
 - **Wii, Playstation 2, and PC Game:** Naked Brothers Band
 - Wrote Playstation 2 Controller API and missing-controller display in C++.
 - Wrote Playstation 2 Memory Card API and display in C++.
 - Wrote Wii Power, Reset, and Exit handlers in C.
 - Wrote Wii disc error handler and display in C and C++.
 - Wrote Wii Home Button Menu handler in C++.
 - Wrote common microphone API interfacing to each platform library in C++.
 - **Gameboy DS Game:** Bratz, Girlz Really Rock
 - Scripted one of the five chapters for the RPG-like story mode in LUA including API additions in C.
 - Wrote pause menu, options menu, and initial version of main menu in C++.
 - Added multiplayer features to one game in C++.
 - Added touch-slider and radio button classes to the game in C++.
 - **PC Proof-of-Concept Game:** Client-Server Network Test in C++ with a data conversion tool in C
- **LaFrance Corporation (MIS Department) – Concordville, Pennsylvania** *August, 2006 ~ January, 2008*
Senior Software Engineer
 - Designed and wrote many auto-generating product reports in Crystal Reports with AS400 SQL interface.
 - Wrote web interface to graphic department's Windows file share to aid design search in PHP.
 - Designed, wrote, and maintained many inventory and billing apps in RPGIII, RPGLE, and CLP on AS400.
 - Rewrote Benmatt website, cleaned up data, and documented it in PHP, MySQL, HTML, CSS, and JavaScript.
 - Wrote Design-Your-Own-Product dynamic web pages in PHP, MySQL, HTML, CSS, JS, and ImageMagick.
 - Designed and wrote first version of LaFrance corporate library in PHP, MySQL, HTML, CSS, and JavaScript.
 - Setup SSL certificate for one of the websites on a Linux-based host.
- **Contracting / Self-Employment** *March, 2006 ~ January, 2007*
 - **Atomic Orange Productions:** Senior Software Engineer; *September, 2006 ~ January, 2007*
 - Worked on SPG288 based PnP game, Bratz at the Mall, in C and SPG2xx ISA Assembly.
 - Worked remotely with team of 2 engineers, musician, and producer.
 - Wrote 2 games and pause, help, level complete, and hardware diagnostics screens in C.
 - Designed and wrote sound driver (4-chan mapped music and 2-chan fx) in SPG2xx ISA Assembly.
 - Wrote simple fixed-point physics module in C.
 - Modified text output driver to support 2 sizes and special characters in C.
 - Optimized and resampled sound effects for ROM space efficiency using Audacity.
 - Gave advice regarding music/sound on Sunplus/GeneralPlus audio chips under ROM constraints.
 - **Cold Fusion Entertainment:** Technical Advisor; *March, 2006 ~ August, 2006*
 - Collected information and wrote documentation and code for SPG290 in C.
- **SDI Technologies/Kiddesigins (Tech2Go Division) – Rahway, New Jersey** *November, 2004 ~ March, 2006*
Lead Software Engineer; Technical Direction; Systems and Network Administrator
 - **Plug-and-Play Game:** TMNT Way of the Warrior (on embedded SPG220 system)
 - Worked with GDD writer and added to game design.
 - Wrote graphics encoding tool in C and provided supplemental artwork using GIMP.
 - Wrote 5 games, main menus, pause, intros, and outros in object-oriented C.
 - Wrote kernel (core) functions and game engine in object-oriented C, C, and SPG2xx ISA Assembly.
 - Wrote all drivers: sound, music, video, sprites, et cetera in C and SPG2xx ISA Assembly.
 - **SPG290-based Children's Game Consoles:** Wizdome Edutainment VGC & Handheld
 - Wrote multiple drivers including: sound, music, video, sprites, etc in C and SPG290 ISA Assembly.
 - Wrote some kernel (core) functions in C and SPG290 ISA Assembly.
 - Wrote some hardware documentation to supplement Sunplus docs.
 - Provided technical direction and provided hardware support to clients.
 - Trained new software engineer on Sunplus hardware.
 - **Tech2Go Internal/External Network**
 - Set up and maintained Linux-based server, switch, router, and PCs running Windows XP.
 - Set up: FTP, Samba, SVN, BBS, and archiving and backup scripts in Bash Script on a Linux host.
 - Began designing for developer website for use by clients.

- **Drexel University & School District of Philadelphia** (Partnership) – *Philadelphia, Pennsylvania* *February, 2004 ~ September, 2004*
 - **Teaching Assistant:** Drexel University, University City High School, and Leidy Elementary
 - Managed a robotics/controls lab.
 - Proctored tests and graded homework.
 - Tutored students in various mathematics and engineering concepts.
 - Prepared 11th grade students for the state-wide PSSA exam.
 - Tutored summer school students in English and mathematics.
 - **Lab Tech Assistant:** University City High School
 - Taught students to organize and catalog scientific equipment.
 - Organized, cleaned, cataloged scientific equipment.
 - Constructed a database of available scientific equipment.
 - Identified and cataloged antiquated computer hardware and devices.
 - Assisted students in performing laboratory experiments.
 - **Engineering Mentor for Robotic Club:** University City High School
 - Taught students robotics and controls concepts.
 - Created robots and controller demonstrations.
 - Aided students with robot building and programming.
 - **Administrative Assistant:** Broad Street Garage
 - Tracked down, cataloged, duplicated, labeled, and organized 100+ keys.
 - Made sure each bus had an active, backup, and master key ring.

- **Contracting / Self-Employment** *April, 2003 ~ January, 2004*
 - **Fez Works:** Software Engineer; *April, 2003 ~ January, 2004*
 - Wrote 3D collision detection in C++ and performed data analysis in Excel with VBScript.

- **Ringing Hill Orchards** (Family Business) – *Pottstown, Pennsylvania* *September, 2003 ~ November, 2003*
Orchard Worker

- **Majesco Entertainment** (Pipedream Interactive Division) – *Edison, New Jersey* *September, 2000 ~ March, 2002*
Software Engineer
 - **PS2 Games:** Soldier of Fortune & Star Trek Voyager: Elite Force
 - Wrote PS2 port of OpenGL (graphics library) on PS2 VU1 in C, PS2 VU Assembly, and DMA.
 - Wrote loading screens keeping load off main processor in C, MIPS Assem., PS2 VU Assembly, and DMA.
 - Wrote minimal MPEG (movie) player in C and PS2 MPEG Libraries.
 - Optimized inter-process communications (to lower data contention).
 - Final code optimizations (mostly involving graphics) in C, MIPS Assembly, and PS2 VU Assembly.
 - Ported some bone animation math to PS2 Vector Unit 0 in C and PS2 VU Assembly.
 - **Dreamcast Game:** Q*Bert
 - Wrote part of inter-executable API in C.
 - Designed high score font and a few minor graphics.
 - Wrote tool to extract and convert some game data in C.
 - Designed and wrote menus and menu effects in C.
 - **X-Box:** Began learning DirectX shaders on NVIDIA GeForce 3 in C and Shader Assembly.

- **Drexel University** – *Philadelphia, Pennsylvania* *January, 2000 ~ June, 2001*
 - **Electrical and Computer Engineering Department Senior Design Coordinator:**
 - Coordinated faculty and undergrad seniors in the ECE department.
 - Scheduled student presentations, found faculty judges, prepared rooms.
 - Updated presentation abstracts and times on the university web site in HTML.
 - Tracked down past years' presentations, sorted, and stored them.
 - **Teaching Assistant:**
 - Managed a robotics/controls lab.
 - Proctored tests and graded homework.
 - Tutored students in various mathematics and engineering concepts.

- **LaFrance Corporation** (MIS Department) – *Concordville, Pennsylvania* *March, 1997 ~ September, 1997; March, 1998 ~ September 1998*
Software Engineer; Systems & Network Administrator

- **Allegheny University of the Health Sciences** – *Philadelphia, Pennsylvania* *September, 1995 ~ March, 1996*
Software Engineer; Web Designer; Software Tester and Trainer

- **Ringing Hill Orchards** (Family Business) – *Pottstown, Pennsylvania* *September, 1992 ~ February, 1993; September, 1993 ~ February, 1994*
Orchard Worker

- Education
 - **Drexel University** – *Philadelphia, Pennsylvania* *September, 1999 ~ 2001*
Masters of Science in Computer Eng. (Computer Controls) Thesis: "Self-Erecting Pendulum: An Example in Computer Controls for Undergrads"
 - **Drexel University** – *Philadelphia, Pennsylvania* *August, 1994 ~ September, 1999*
Bachelor of Science in Electrical Engineering (Systems and Controls) Minor in Computer Science
Bachelor of Science in Computer Engineering GPA: 3.713, Magna Cum Laude, Distinguished Honors