1714 Franklin St, Ste B1
Oakland, CA 94612

Timothy P. Ryan

Engineer / Developer

(510) 972-8346
tim@seventhcircleaudio.com
http://sca2.github.io

Skills

Languages	**C,** C++, **Ruby, JavaScript, Java,** Python, Elixir, Smalltalk, Ada
Web Technologies	**Rails, HTML, HAML, CSS, SASS, jQuery, React,** Bootstrap, Foundation, Phoenix
Web Testing	**Minitest, RSpec, Capybara,** Cucumber, Karma, Jasmine
Embedded Technologies	**ARM Cortex M4, Microchip PIC, UART, I2C, SPI, CAN, ADC, DAC,** BTLE, ANT+
Embedded Testing	**Unity, Ceedling,** CMock, CException
Hardware Test and Bring-Up	**Oscilloscopes, Logic Analyzers, DMM, Audio Precision, Curve Tracer**
Hardware Prototyping	**Through-hole and surface mount soldering,** CNC machining, sheet metal fabrication

Proficient | Familiar

Professional Experience

Product Engineer / Developer — **Seventh Circle Audio** — **2001 – Today**

- Design and develop pro audio products from schematic capture and SPICE simulation through PCB layout and board bring-up to firmware development and enclosure design.
- Develop and maintain Rails-based e-commerce site www.seventhcircleaudio.com
- Manage vendors and subcontractors to ensure timely delivery and high quality of components and sub-assemblies.

Software Engineer — **Avid Technology, Inc.** — **2000 – 2001**

- Developed embedded C code for Motorola 683XX-based control product.

Test Engineer — **Finisar Corporation** — **1999 – 2000**

- Developed Windows test suite in Visual C++ for fiber channel network analyzer.

Systems Engineer — **Navitel Communications** — **1998 – 1999**

- Performed device driver debug and telephony peripheral hardware support for Windows CE-based product.

Hardware Engineer — **Compaq Computer Corporation** — **1997 – 1998**

- Tested and characterized components such as video DACs to support product development.

Project Engineer — **Integrated Industrial Technologies** — **1994 – 1997**

- Developed industrial automation software for large manufacturing clients such as PPG and Kennametal.
- Designed and developed intelligent I/O module for use with AEG/Schneider PLC.
- Designed custom I/O board for VME based automation system.

Engineering Technician — **Carnegie Science Center** — **1991 – 1994**

- Designed, fabricated, and programmed microcontroller-based exhibit and theater control electronics, including a current-sensing block detection system for a large model railroad.
- Made extensive use of 8-bit PIC microcontrollers programmed exclusively in assembly language.

Professional Development

Unit Testing Embedded C	TDD tools and techniques for embedded C	**Udemy**
Production Quality Rails	Agile methods and continuous integration on Heroku	**Tealeaf Academy**
CS169.1x/2x	BDD and TDD in Rails with RSpec, Cucumber, and Capybara	**edX (UC Berkeley)**
UT6.0.2x	Embedded Systems with ARM Cortex and C	**edX (UT Austin)**
Algorithms I and II	Classic algorithms from A* to quicksort, DAGs to strings	**Coursera (Princeton)**

Education

Bachelor of Science, Computer Science	**University of Pittsburgh**
Associate in Specialized Technology, Electronics	**Penn Technical Institute**
Bachelor of Arts, English Writing	**University of Pittsburgh**