

## Patrick J. Timlick - Senior Software Engineer

Timlick & Associates Inc.	website: <a href="http://www.timlick.com">www.timlick.com</a>
email: <a href="mailto:ask@timlick.com">ask@timlick.com</a>	Mailing: 3900 N. Tres Lomas Dr. Tucson AZ 85749
Phone: 520-477-7638	

### Overview

A versatile, well educated and highly skilled engineer of software and systems for high tech industry, business and government. Specialties include software design, enhancement and debugging of existing systems. I have a large repertoire of skills and techniques that can apply to familiar and unfamiliar problem domains with good outcomes.

### Education

- M.S. Electrical Engineering, University of California at Santa Barbara. Software and Hardware Architecture, Wide Area Networks, Digital Signal Processing.
- B.A. Physics and Mathematics, Western Washington University. Computer Programming, Semiconductor Physics, Numerical Analysis, Electronics.

### Professional Experience

#### Intel McAfee Security 2015-2016

Large International Agile foundation project using Spring Framework for many products and services. Analyzed performance of Hbase Big Data store with JMeter and Maven. Analyzed Fips-140 crypto libraries, replacing RSA with Bouncycastle. Created JUnit tests of SQL server modules using dependency injection to run on Team City Integration Server.

#### Intel MICA Android Wearable 2014-2015

Agile project project to bring “My Intelligent Communication Accessory” to market. Develop and debug Notification, Short Message Service, Calendar, and Email, applications for a very specialized wearable device. Used Android Studio, Gradle, Jira, Artifactory and other modern development tools and services.

#### Flashtiming 2014

Designed and implemented a Raspberry Pi – Mobile App controller for Track Meet display clock. Pi controller is implemented with Nodejs. The AngularJS Mobile client connects to Pi

with WiFi. The Pi controls starting, stopping, resetting and display of the main large display clock. Setup and used Bitbucket Git repository and Webstorm IDE.

## **Carpenters Calc 2013-2014**

Updated Carpenters Calc to support Tablets and Notepads. Converted development environment to Android Studio with Gradle and Git. Released new version to Google Play and Amazon Marketplace. Tested implementation with appthwack.com.

## **Dark Horse Comics 2012-2013**

Member of an Agile development team doing Android, Ipad, Iphone and Web development. Xcode IDE, Android Studio and Bash were the primary development environments.

- Implemented Java dynamic image decimation to display large images on small memory Android devices.
- Efficiently AES encrypted and decrypted image files on Android and IOS.
- Created Optimized PostgreSQL indexes to make long running reports fast.
- Removed Website bottlenecks identified by New Relic with engineered database indexes.
- Prevented man in the middle attacks on SSL connections.

## **Tour Buddy Systems 2012**

Android Java application design and development to provide a framework for a suite of trivia quiz games. The games feature animated screens, buttons, text and graphics, and audio effects.

## **Unisearch 2012**

HTML5 Mobile website for legal service corporation. Created with Javascript - JQuery Mobile.

## **Intel New Business Initiatives 2011**

Android Java application design and development for alternative cellular phone business models. Metered and controlled internet access by website and by application. Parsed Iptables output, aggregated results in Sqlite. Transmitted results to server using JSON - REST. Implemented, configured and supported an end to end proof of concept system. Analyzed bandwidth requirements using Squid, Iptables and Wireshark

## **Kimera Systems Android Home Screen App Widget 2010**

Design and development of a location aware home screen widget that periodically transmits the phone's location to a server, then changes appearance and behavior, based upon a response from the server. The Browser window furnishes a custom API for Javascript within the displayed HTML pages.

## **Android Marketplace “Carpenters Calc” 2010**

Design and development of Android calculator for carpenters, cabinet makers, machinists. Carpenter’s calc has direct manipulation of Foot Inch and Fraction measurements for the easiest data entry of any calculator. It also converts to and from metric system “decimal pointed” measurements. Results are rounded and displayed to a configurable accuracy, usually the accuracy of the measurement device. Tested implementation with JUnit tests. Average user rating 4.7/5.0 in Android Marketplace.

## **Applied Test Equipment (ATS) 2002-2009**

ATS acquired a line of automatic electronic test equipment that ran on obsolete Sun workstations. Converted Sun C device drivers to Linux GCC.

- Re-engineered the device driver to use a VME adapter from National Instruments.
- Converted and enhanced the middleware.
- Re-implemented digital pattern generator assembler using Python Yacc (PLY).

## **Avedo Human Resources Software Group 2001**

Created Python programs to parse XML page definitions, build HTTP "Get" queries and check the returned result with HTMLparser.

## **Digital Media Workshop 2001**

Captured MJPEG encoded video with Zoran based capture card, custom Linux kernel and RAID0 (high transfer rate disks). Transformed captured MJPEG to edited and enhanced MPEG1, MPEG2, and MPEG4.

## **Intel Wireless Handheld 2000-2001**

Designed and implemented ASP-Sql Server-Python-DHTML system to generate tightly formatted television program guide for hand-held wireless display. XSL programs to format XML news and weather for display on prototype small wireless hand-held device.

## **Previous Projects**

- Independent Software Consultant
- Database system developer for mainframe and mini computer companies.
- Developed Electronic Test Equipment software
- US Army Veteran - Honorable Discharge
- Details available on request