

Keith Michael Looney
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Work Experience

Electronic Technician (February 2011 to February 2017)
General Electric Global Research, Niskayuna, NY

Developed both experimental and commercial-quality embedded applications in C++ on the Raspberry Pi platform connected to laser, camera, galvanometer, and switch peripherals through GPIO digital, I2C, SPI, and PWM interfaces. Developed applications to control GPIB test instruments in Python and Lua. Created a LabView application for data acquisition that was faster, more reliable, easier to use, and had more features than previous test applications. Created Excel VBA Add-In's for data import and analysis of test results. Projects included a portable and fast early detection malaria test reader, jet engine thermal analysis, MEMS device testing, organic photo diode, and thin film solar initiatives. (First year as a contractor with Yoh Services LLC)

Senior Software Engineer (September 2000 to April 2010)
On2 Technologies, Inc., Clifton Park, NY (acquired by Google Inc.)

Developed streaming video compression software in C++. Designed, developed, and maintained our original commercial video and audio encoding application. Worked on Adobe Flash Media Live Encoder – turned a prototype into a fully functional commercial application. Wrote most of On2's DirectShow filters for video and audio encoding, decoding, and image processing. Developed and implemented image processing algorithms for video pre- and post-processing. Contributed to work on compression library internals for the On2 VP family of codecs. Wrote video processing tools and diagnostic utilities. Intimately familiar with the AVI and MP4 file formats and many other video and image file formats. Wrote test applications in Visual Basic.

Development Engineer (December 1998 to August 2000, August 1993 to May 1997)
LabVantage Solutions, Inc., Bridgewater, NJ (formerly Laboratory Microsystems, Inc., Troy, NY)

Developed software for the LabVantage Laboratory Information Management System. Wrote Windows database application programs for a client/server environment using Microsoft Visual C++, Microsoft Access/Visual Basic, and PowerBuilder to interface with Oracle, Microsoft SQL Server, Sybase SQL Server, and Informix relational databases. Used the ODBC function interface to access databases from C++. Used SQL to interface with databases on all platforms. Performed database administration functions for Oracle and SQL Server databases. Wrote development guidelines, API's, and other programming specifications.

Software Engineer (February 1998 to December 1998)
General Electric Power Systems, Schenectady, NY (Adecco/TAD Technical Services)

Developed applications in C++, Microsoft Access, and Java to support Engineering Business Systems, Automation Technology, and other financial and project tracking requirements in support of GE's Six Sigma initiative. Interfaced with Oracle, Sybase, and Access databases through ODBC and JDBC. Designed and implemented both Sybase and Oracle databases.

Electrical Engineer (August 1992 to April 1993)
Vision Electronics Ltd., Albany, NY

Designed and constructed computer hardware for cable television converter repair. Built a converter reprogrammer that gave technicians the ability to repair the new line of Jerrold converters and enabled Vision Electronics to repair 100% of the converters that were sent in for repairs. Designed and constructed a computer plug-in card to feed test signals to converters and wrote software to control it.

Computer Programmer (April 1988 to February 1991)

Pelican Software, Farmington, CT

Wrote Pelican Press, a personal desktop publishing program with strong clip-art capabilities, an extensive set of painting operations, and the ability to produce poster size printouts for the Commodore Amiga computer. Designed, implemented, and tested the program using the C language. Wrote 100 page user manual.

Education

B.S. Electrical Engineering

Minor: Computer Science

Rensselaer Polytechnic Institute, Troy, NY