

LARRY FISCHER
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Professional Experience

Independent Contractor (Nov 2015-Present)

Equalia Inc Oct 2017 - Present

Ported Python interpreter to Cypress PSOC 42-BLE. C++

Ported Python interpreter to PAC5523. C++

Developed software for dedicated printed circuit board tester for manufacturing floor. Via SW and HW interfaces, validate PC boards prior to assembly. LCD, Serial, ADC, etc. C, IAR STM32

Modified existing iPhone app. Enhanced communication protocol. Xcode, Swift.

Modified embedded application (C - Arm Cortex), and accompanying android app (Java), to support firmware upgrade over Bluetooth. Added BLE functionality to both embedded and Android app. Android app integrated with AWS S3 for FW image update. Took over support of embedded battery mgmt, and one wheeled device application.

Modified existing Android application to utilize packet data over Bluetooth. Wrote packet layer and enhanced application communications as well as wrote custom bootloader server. Java

Dedicated Manufacturing Test Device for One-Wheeled, personal transportation Device. Color Sensor, PWM Motor actuator, Magnetic brake, Cognex QR code reader, Load Cell via Serial port. IAR/C/FreeRTOS embedded controller communicating with Microsoft Visual C++ Windows front end.

Dedicated Manufacturing Test Device for Lithium Ion battery pack. IAR/C, Python - STM32F4
Cypress bootloader server over serial port for Lithium Ion battery. IAR/C - STM32F4

Tekpea Inc - Sept 2016 - Oct 2017

Automated Manufacturing tests for IOT devices. C#, VB, Python, C. NI-VISA. Control of O-Scope, RS485
SW/HW dev/support of powerline energy products. Debug, test HW/SW, protocol.

Sony - Jan 2017 - March 2017

Custom Robotic Arm for 3D imaging. Extensively modified Robot shop robotic arm. All mechanical, electrical, and software. Application was 3D imaging. Bluetooth control, RPI, Servos, Android control application. C++, Java.

Custom Fire Alarm Test Tool for Individual - March 2016 - July 2016

Fire alarm panel alarm to SMS, w/ Twilio/web server (PHP) back end db (MySQL). Arduino (C), Serial ports, LCD display, EFCOM GSM

Personal Projects:

Net-Zero, solar powered office. Computer monitoring of solar power system. Temperature, light, voltage, current. Arduino, linux C++.

Solar Powered, Pump/Valve Management - Arduino Uno (C) managing solar cell and Pb battery. A2D Converter - voltage sensors, Valves, pumps.

Multiple wordpress websites, hosted on private servers running Ubuntu - Travel and personal trainer oriented. Managed all CMS and DNS.

Endurant Systems

Co-Founder/VP Engineering (Aug 2014 - Nov 2015)

At this early stage startup, I was responsible for the development of HW/SW systems to enable long duration, heavy lift UAV-copters. I created a computer controlled, gas powered generator. It was started by a BLDC. After start, the BLDC was then used to generate 3000W power for the UAV. Hands-on designer/implementer of Mechanical/Electrical/SW systems (STM32F4 (ARM)/chibios, RPi/Raspian) C Embedded multithreaded control system for motor control, servo, temperature sense, RPM, power, voltage, etc. Used various interface protocols: CAN, I2C, SPI, Serial, RF, etc. Work with 3rd party vendors to design/produce custom components.

Cisco Systems

Manager SW Development (SPVTG) - (1999-2014) I resigned voluntarily, in order to co-found a startup. I was rated exceptional at the time - Cisco's highest performance rating.

As 2nd line manager, responsible for development and support of video storage/distribution product. Managed local team of 40 engineers, as well as remote teams in Utah and India - total of >100 engineers. Interacted w/ major video customers on near-daily basis. Frequent customer visits.

Sentient Networks was acquired on 6/99 by Cisco Systems.

Sentient Networks Senior Engineer (1998-1999)

Project lead in three person team tasked to design and implement a command line interface (CLI) network management tool for an ATM switch. Integrated management of multiple vendors products into one management tool for seamless control. Hired and directed consultant's effort. Created and executed test plans and enforced software release process - In four months in the field, 5 bugs were found by our customer. Solaris, C, SNMP.

ADC SoftXchange Senior Engineer (1997-1998)

For this startup company within ADC Telecommunications, I defined and developed solutions for customers that utilized SoftXchange's product - a legacy application interconnection toolset. This toolset provided a Web based front end to non-web applications. C++, HTML.

The Apex Group was acquired on 4/97 by ADC Telecommunications.

THE APEX GROUP

Project Leader (1992-1997)

Oversaw three engineer's efforts to port Windows interface code to OS2 - C. Designed and developed HP OpenView application for management of wireless network - C++. Designed and developed HP OpenView application for management of CSU/DSU - C++. Oversaw two engineer's design and development efforts to port Windows OpenMail client to Macintosh. Assisted in coding of Mac client. Designed and developed cross-platform client-server Phonebook for HP OpenMail. Led development of two man team to implement project under Windows 3.1, Mac, Solaris, SunOS, AIX, and HPUX - C. Responsible for improving development infrastructure including standardized backups, quality control software, and version control software. Participate in Pre and Post sales support for OpenMail and OpenView including demonstrations, training, and on-site support.

1984-1992

Embedded developer/manager for various communication products - assembly languages: 68000, 6502, 80186

Operating Systems: Linux, Chibios, FreeRtos, Raspian, Android, IOS, Windows, HPUX, Solaris, AIX (and BareMetal on many processors)

Languages: C#, VB, C, C++, Java, Objective C, Perl, Python, 680X0, 80X86, 6502

Microcontrollers : Atmel, ARM, Microchip, Arduino, RPI

Web: Wordpress, Apache, Python, PERL, PHP, MySQL

Own a Logic analyzer and Oscilloscope

Cisco certified internal ISO 9001 auditor

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