

## Resume of Richard Hillery

### SOFTWARE ENGINEER

I have a solid background in simulation, User interfaces, avionics, and visual systems. I have also developed device drivers, real time network interfaces, and embedded software. I am comfortable developing on Windows, Linux, Unix and Mac.

### SKILLS:

My language of choice is C++, but others object oriented languages (C#, Objective-C, ada, java, php) are fine too. I have experience in most computer languages, and have even written several languages. I have experience in all phases of software development and management, from developing to maintaining software.

### PROFESSIONAL WORK EXPERIENCE

#### **Aeronautical Systems Engineering**

(2007–2014)

##### Avionics Engineer

- Developed a Graphics Engine to convert XML to animated interactive graphics.
- Developed avionics simulations of Proline 21, Garmin 430 systems, EHSI, ADI, EADI, GE ISIS, and an older INS system.
  - o Included Graphics and modeling well as interfacing to the flight simulation hardware and software.
  - o Developed Cockpit replications in software for CJ1, CJ1+, G222, 172, Warrior, Seneca Seminole, C90.
  - o Developed Open Scene Graph implementation of an IR Camera aiming device controls for a MI-17 Helicopter simulation.
  - o Co-Developed (50%) Instructor's station that is tablet based.
- Developed a TCAS I and TCAS II simulation (Anti-midair collision) for multiple simulators, including Targets in the visuals and multi-simulator interface.
- Developed an INS simulation for a G222.
- Developed a debugged interface to Microsoft Visual Studio (versions 2003 thru 2013) that allows real time inspection of variables during program execution, including inside C++ classes.
  - o This resulted in the ability to use simple tools to read the variables inside one program in order to use in a different program, on either the same computer or a different computer, by using the name of the variable.

#### **Aero Simulation**

(2006 – 2007)

##### Instructor Stations Engineer

- Developed Instructor Station for Landing Signal Officer Trainer.
- Project involved about 30 pages of various controls (written in MS C# and C++), communicating real time via UDP and TCP to a flight simulator written in Fortran on Linux.

#### **Odyssey Marine, Jackson Hewitt (Contract)**

(2005 – 2006)

- Manages technical projects, including website upgrades using Perl/PHP/MySQL and tax filing system enhancements.

#### **Certification Associates**

(2003 – 2011)

## Instructor

- Teaches Linux+ and Inet+ courses; 100% of students earned certification as Linux specialists.

## Custom Manufacturing & Engineering

(2004 – 2005)

### Software Engineer III,

- Coordinated operating system installations and upgrades.
- Provided OS design and network design for an embedded application (MIRRS) on an ARM system.
- Wrote an Ethernet driver for an ARM-255 and ARM-270 computer system in C under Linux, as well as USB-Ethernet adapter driver.
- Created a GPS interface in C++, designed for a UV-C muzzle flash sensor system and a target recognition data fusion system.

## Special Data Processing, American Income & Life

(2003)

### Sales Representative

- Received a health and life insurance sales license.
- Sold Life insurance and Health insurance

## Iconix International

(1990 – 2002)

### Vice President, President & Systems Engineer

- Authored and executed a business plan for a start-up company, building an effective software development team producing user interfaces ~10x faster than competitors.
- Established a business capturing more than 10% of every full flight simulator business worldwide in both military and civilian sectors' use.
- Directed the design, coding, debugging, and implementation of communication protocols, including dynamic reconfiguration of data packets.
- Setup Unix & Linux systems, networks, and X-terminals, along with motion ruggedized embedded systems.
- Migrated navigation databases, search engines, and interfaces from a simulation host computer to instructor station computer for multiple vendor's designs.
- Developed a graphics language (XMIOS) currently in use at hundreds of corporations.

## EDUCATION

- **MBA**, University of Phoenix
- **Bachelor of Science in Mathematics**, Virginia Tech University
- **Completed MS in Computer Science & Engineering Management Coursework**, University of South Florida
- **PHD-ABD (all but dissertation) in Mathematics**, University of Virginia
- CompTIA Linux+ & Inet+ Certified

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