Al Piepho

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https://www.linkedin.com/in/al-piepho-fw-sw-engineer

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Software | Firmware | Embedded Systems | Web Development

- 15+ years developing and debugging Software for highly constrained Embedded Systems
- Recently expanded those skills toward Web development and Full Stack systems
- Very strong in numerous languages, most recently HTML, CSS, Javascript
- Demonstrated ability to ramp up on existing systems and contribute quickly.
- 20+ projects for Lynda.com and FreeCodeCamp courses over past 6 months
- Projects deployed on host servers such as Github, Heroku, and AWS
- A self starter who welcomes the chance to own the difficult problems
- Continually looking to be the "force multiplier" that makes my team more effective
- Recognized by co-workers for innovation, productivity and results

Skills
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Programing Languages: HTML, JavaScript, CSS, C#, C, C++, Python, Ruby, Asm, Java, various Scripting
Programming Frameworks: Node.js, Express.js, MongoDB, jQuery, React.js, Angular.js, D3.js
SW Development Tools: Git (Bitbucket, GitHub), Visual Studio Code, , VS 2017, Eclipse, Postman
FW Development Tools: Various emulators, various HW scopes
Testing Frameworks: Selenium, Jenkins
Protocols and Standards: JSON, REST, XML, USB, SCSI, CD-R/RW, DVD
Computer Operating System Internals: Mac, Linux, Windows

Work History
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In-Situ, Northern Colorado   **September 2017-present**
- Mobile App SW development with C#, .Net and Xamarin
- Designing automated test framework with Xamarin UITest (formerly Cabash)
- Designed several Python scripts for generating large data set log files for testing

Individual Training, Northern Colorado   **April 2017-September 2017**
- Finished 200 hour freeCodeCamp Front-End Development certification in 26 days
- Finished 200 hour freeCodeCamp Data Visualization certification using Javascript and D3.js
- Near completion of freeCodeCamp Back-End Development certification using Node.js, Express.js, and MongoDB
- Completed of 50 Day "CSS Challenge" to build complex web graphics with CSS only.
- See link for portfolio of all projects: https://alpiepho.github.io/project-portfolio/

Broadcom LTD (Avago Technologies), Northern Colorado　　　　　　2013-2017
Senior Firmware Engineer
- Designed and implemented very low level, efficient FW for several SERDES (serialize/deserialize) ASICs used in very high speed computer interfaces such as Ethernet, SAS/SATA
- 3 years coding with Ruby, including complex area of marshaling to Native C as part of a test tool
- Tackled the tough problems, such as recovering memory, and improving existing debug tools

Schneider-Electric (Pelco), Northern Colorado　　　　　　2008-2013
FW/SW Engineer
- Integrated third party video analytics SW into existing digital video camera, allowing competition in new market segment
- Several years as part of very successful Agile/Scrum development team

Hewlett-Packard Company, Northern Colorado　　　　　　2001-2008
SW Engineer – Storage Works NAS Division
- Developed .Net and C# Application SW for Storage Management product. Ramped up quickly on new product and new SW language

FW Engineer - Consumer Imaging Products
- Developed FW for several digital cameras
- Local expert in key areas: performance and embedded code/memory usage
- Reduced effective camera boot time from 5 seconds to under 1 second.
- Designed SW simulator for DSP image processing engine of 2 competing ASICS, allowing direct porting of key algorithms between platforms

Lead SW Engineer - Consumer Entertainment Solutions
- Architect for exciting home entertainment product in a fast paced emerging product category
- Leveraged many existing and new Linux applications into one of first Internet appliances
- Saw product released to local Best Buy store shelve

Training

Front End Development Certification - FreeCodeCamp
40+ Course Certifications - LinkedIn/Lynda.com

Education and Training

Bachelor of Science, Electrical Engineering - University of Colorado, Boulder CO
Bachelor of Science, Computer Science - Iowa State University, Ames IA

Awards

Author on 6 U.S. Patents, see LinkedIn page for more details

Web Technologies Portfolio

https://alpiepho.github.io/project-portfolio/