Al Piepho

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

Software | Firmware | Embedded Systems | Web Development

- 15+ years developing and debugging Software for highly constrained Embedded Systems
- Recently turned those skills to learn Web development and Full Stack systems
- Very strong in many languages, most recently HTML, CSS, Javascript
- Demonstrated ability to ramp quickly on existing systems and contribute faster than expected.
- 20+ projects for coursework from Lynda.com and FreeCodeCamp over past 6 months
- Projects deployed on host servers like Github, Heroku, and AWS
- A self starter who welcomes the really difficult problems
- Always looking for opportunities to be the "force multiplier" to make whole team more effective
- Recognized by co-workers for innovation, productivity and results

Skills

Programing Languages: HTML, JavaScript, CSS, Ruby, C, C++, C#, Asm, Java, various Scripting
Programming Frameworks: Node.js, Express.js, MongoDB, jQuery, React.js, Angular.js
SW Development Tools: Git (Bitbucket, GitHub), Atom, Sublime, Visual Studio Code, 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

Individual Training, Northern Colorado   **April 2017-present**
- Took advantage of down time to sharpen development skills
- Focus on rapidly changing landscape of Web development and Full-Stack systems
- Finished 200 hour freeCodeCamp Front-End Development certification in 26 days
- Completed 20+ Web training courses from LinkedIn/Linda.com in past 6 months
- Near completion of freeCodeCamp Back-End Development certification using packages like Node.js, Express.js, and MongoDB
- Near completion of 50 Day "CSS Challenge" to build complex web graphics with CSS only.
- Coding every day, with all work in git, specifically GitHub and Bitbucket
- Continually consuming related Software and Web blogs/articles/podcasts to stay current
- See link at the end of this page for portfolio of all projects

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 though problems, like recovering scarce 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
29 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/