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| **SUMMARY** |
| A software developer experienced in the areas of embedded software planning and development. |
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| **EDUCATION** |
| **Bachelor of Science in Computer Science**  Florida State University: 2012 – 2015 (expected)  **Mandarin Chinese (2 classes)**  Bellevue College: 2012  **Master of Science in Electrical and Computer Engineering – Digital and Computer Systems**  Grand Valley State University: December 2010  Outstanding Graduate Student in Engineering, 2010 |
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| **Bachelor of Science in Electrical and Computer Engineering**  **Minor in Mathematics**  Calvin College: May 2006 |
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| **COMPUTER PROFICIENCIES** |
| *Programming Languages – Significant Experience:* C, C++, Python, X86 Assembly, VHDL, Verilog, Perl  *Operating Systems:* uC/OS-II, FreeRTOS  *Specific Applications*: GNU GCC, GNU Make, Dimensions, DxDesigner, PSoC Designer, TestTrack Pro |
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| **WORK EXPERIENCE** |
| **Software Developer at Gentex (May 2012 – present)**   * Develop C software for several rear view mirrors and OEMs. The software was responsible for CAN communication, rear camera displays, electro-chromatic circuitry, SmartBeam, lane departure warning, and traffic sign recognition.   **Software Project Manager at Gentex (March 2011 – May 2012)**   * Manage the requirements, implementation, and testing of software developed for several rear view mirrors and OEMs.   **Faculty at Calvin College (January 2010 – present)**   * Taught a Circuits Analysis and Electronics lab.   **Project Manager at DornerWorks (November 2009 – March 2011)**   * Managed the requirements, implementation, and testing of software developed for several rear view mirrors and OEMs. * Acted as project manager for DornerWorks’ employees on-site at Gentex. * Managed a team of 3 people doing DO-178B Tool Qualification. Managed a team of 3 people that fixed and verified problem reports. * Managed a team of 4 people doing DO-178B source to object analyses of C and Ada operating system code. * Managed a team doing the DO-178B Data and Control Coupling analysis of several parts of the operating system. Performed manual analysis to identify data and control couples and wrote requirement based tests to fill gaps. * Managed a team of 10 people in developing and maintaining DO-178B Level A high level requirement based tests for the Avionics Full-Duplex Switched Ethernet, Board Support Package, File System, Health Monitor, and Bulk IO drivers.   **Technical Lead at DornerWorks (September 2008 - November 2009)**   * Led a team of 12 people in developing DO-178B Level A high level requirement based tests for an Avionics Full-Duplex Switched Ethernet (AFDX) driver. This included writing 1500+ tests for 220+ requirements. * Ported requirements based tests for over 200 requirements to a secondary hardware testing platform. * Led a team of 10 people doing DO-178B Level A problem report verification. This consisted of verifying that the problem report was completed according to process and working with the development team to correct any issues.   **Embedded Systems Engineer at DornerWorks (April 2006 – September 2008)**   * Assisted development of the Board Support Package for a VxWorks Real Time Operating System on a PowerPC 7447A/7448 Single Board Computer. All software development was performed in C and PowerPC assembly languages, and was done to the DO-178B Level A standard. * Developed an electronic fan speed controller, and wireless remote that was capable of programming the fan for different speeds. This included hardware schematic design, C software development, and board layout.   **Intern at Smiths Industries Aerospace (now GE Aviation) (March 2005 – March 2006)**   * Used C, National Instruments TestStand, and LabWindows to write test support software. * Testing and debugging the hardware of a PowerPC Single Board Computer. * Design, validation, and testing of a digital circuit that is used in testing the power supply on a single board computer.   **Calvin College Engineering Department (April 2004 – December 2004)**   * Continued development of an application, written in C++, that analyzed acoustic and vibration response to specific forces. Also developed a GUI for the application. |
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