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| **SUMMARY** |
| A well-rounded software developer with over 8 years of experience developing and maintaining embedded software solutions for aerospace and automotive customers. Extensive background in the full life-cycle of the software development process including design, development, test, debug, and maintenance. |
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| **WORK EXPERIENCE** |
| **Embedded Software Engineer at Gentex (May 2012 – present)**  Design, implement, test, debug, and maintain embedded software for several rear view mirror products and OEMs.   * Integrated CAN communication, electrochromic dimming, lane departure warning, traffic sign recognition, Smartbeam, and TCP/IP software libraries into customer projects. * Developed software that interfaces with a third party vision processing module, using the resulting information to provide lane keep assist, traffic sign recognition, and automatic high beam control. * Participated in the development of an OSEK compliant operating system developed for internal projects. * Developed software to support a new hardware system consisting of a dual core ARM Cortex A9 microcontroller with attached FPGA fabric, used for internal algorithm development and analysis.   + Ethernet, FPGA programming, watchdog, and SPI microcontroller drivers.   + Application code to support the processor, the FPGA, and algorithms running on target.   + Bootloader.   + ARM NEON optimizations. * Developed specifications and software to support customer specific CAN diagnostics. * Developed software to support displaying images and animations on small LCD screens.   **Software Project Manager at Gentex (March 2011 – May 2012)**  Manage the requirements, development, and test phases of embedded software for several rear view mirror products and OEMs.   * Worked with Opel, Jaguar, Land Rover, GM, and Nissan on Rear Camera Display and Smartbeam projects. Travelled to Japan, UK, and Mexico to support these activities.   **Faculty at Calvin College (2010)**   * Taught a Circuits Analysis and Electronics lab.   **Technical Lead / Project Manager at DornerWorks (September 2008 – March 2011)**  Manage the requirements, development, and test phases of embedded software for several products and OEMs.   * Led a team of up to 16 people working on GE Aviation’s Software Common Operating Environment.   + DO-178B Tool Qualification   + DO-178B Problem Report Verification   + DO-178B Structural Coverage Analysis of C code, Source to Object Analysis of C and Ada code, and Requirements Based Testing, focusing on the AFDX Ethernet Driver, Board Support Package, File System, and Health Monitor of the VxWorks Operating System. * Led a team of up to 5 people doing requirements, development, and testing of software for Gentex’ dimmable aircraft windows.   **Embedded Systems Engineer at DornerWorks (April 2006 – September 2008)**  Design, implement, test, debug, and maintain embedded software.   * Developed a DO-178B Board Support package for the VxWorks Operating System of GE Aviation’s Software Common Operating Environment. * Developed the hardware and software for an electronic fan speed controller and wireless remote control.   **Intern at Smiths Industries Aerospace (now GE Aviation) (March 2005 – March 2006)**   * Used C, National Instruments TestStand, and LabWindows to write test software. |
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| **Technical Skills** |
| *Programming Languages*   * *Proficient:* C * *Familiar with:* Ruby, C++, X86/ARM assembly |
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| **Education** |

**Bachelor of Science in Computer Science**

Florida State University: 2012 – 2015 (expected)

**Master of Science in Electrical and Computer Engineering – Digital and Computer Systems**

Grand Valley State University: December 2010

Outstanding Graduate Student in Engineering, 2010

**Bachelor of Science in Electrical and Computer Engineering**

Minor in Mathematics

Calvin College: May 2006