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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 for internal algorithm development. * 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. * Developed software to support customer specific CAN communication and 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 directly with OEMs on project definition, project status, and issue resolution. Travelled to Japan, UK, and Mexico to support these activities. * Staffed, organized, tracked, and reported status on projects.   **Faculty at Calvin College (2010)**   * Taught a Circuits Analysis and Electronics lab.   **Project Manager at DornerWorks (November 2009 – March 2011)**  Manage the requirements, development, and test phases of embedded software for several products and OEMs.   * Worked with customers on defining projects, project status, and issue resolution. * Managed teams doing DO-178B structural coverage analysis and requirement based testing of several features of a VxWorks Operating System. * Managed teams doing requirements, development, and testing of software for several small automotive products. * Staffed, organized, tracked, and reported status on projects.   **Technical Lead at DornerWorks (September 2008 - November 2009)**  Lead the design, implementation, testing, debugging, and maintenance of embedded software for several products and customers.   * Participated in defining projects, project status, and issue resolution with customers. * Led a team that developed 1500+ DO-178B Level A requirement based tests for 220+ requirements for a VxWorks Operating System Ethernet driver. Ported the tests to a secondary, cheaper and more available, hardware testing platform. * Led a team that performed DO-178B Level A verification of 100+ problem reports.   **Embedded Systems Engineer at DornerWorks (April 2006 – September 2008)**  Design, implement, test, debug, and maintain embedded software.   * Developed a DO-178B Level A compliant hardware support software for a VxWorks Operating System used for flight controls. * 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