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| **SUMMARY** |
| A well-rounded software developer with experience developing and maintaining embedded software and mobile applications 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** |
| **Lead Software Engineer at Gentex (April 2018 – present)**  Lead a small team of engineers designing, implementing, testing, debugging, and maintaining AWS cloud systems, Android mobile applications, and iOS mobile applications for several rear view mirror products and OEMs.   * Lead a small team of engineers, including creating a development process that ensures efficient, highly intuitive, reliable mobile applications, holding annual reviews, and holding one-on-ones. * Acted as lead iOS developer on the HomeLink Connect app, Gentex’ first production mobile application.   + Wrote the majority of the Bluetooth code that communicates with rear view mirror products and the majority of the networking code that communicatee with Gentex’ AWS backend.   + Handled the configuration including Apple developer accounts, certificates and provisioning profiles, continuous integration / continuous delivery, releasing internally and to the App Store. * Prototyped many demonstration apps, including:   + Navigation (GPS & Google Maps) functionality.   + Bluetooth Low Energy functionality.   + Networking functionality, including REST & WebSockets.   + Streaming video, including over RTSP & HTTP.   **Embedded Software Engineer at Gentex (May 2012 – April 2018)**  Design, implement, test, debug, and maintain embedded software for several rear view mirror products and OEMs.   * Wrote embedded C/assembly software that is running in millions of vehicles. * Integrated CAN communication, electrochromic dimming, lane departure warning, traffic sign recognition, Smartbeam, rear camera display, 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, I2C, UART, 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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| **Education** |

**Bachelor of Science in Computer Science**

Florida State University: 2012 – 2015

**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