NICHOLAS J. GOOTE

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SUMMARY

A software developer experienced in the areas of embedded software planning and development.

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

Bachelor of Science in Electrical and Computer Engineering
Minor in Mathematics
Calvin College: May 2006

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

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.