

## SUMMARY

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

## WORK EXPERIENCE

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### **Embedded Software Engineer at Gentex (May 2012 – present)**

- Designed, implemented, and tested embedded software for several products and OEMs.
- Integrated CAN communication, electrochromic dimming, lane departure warning, traffic sign recognition, Smartbeam, TCP/IP functionality into customer projects.
- Developed software that interfaces with a third party vision processing module, and used the resulting information for internal algorithms.
- Participated in the development of an OSEK compliant operating system developed for internal projects.
- Brought up and maintained a new hardware system consisting of a dual core ARM Cortex A9 microcontroller with attached FPGA fabric, which is used for algorithm development and analysis. Development included a bootloader, Ethernet, FPGA programming, watchdog, and SPI drivers, and application code to support the processor, the FPGA, and the algorithms running on the target.

### **Software Project Manager at Gentex (March 2011 – May 2012)**

- Managed the requirements, development, and testing of software developed for several rear view mirrors and OEMs.
- Worked directly with OEMs on project definition, project status, and issue resolution. Travelled to Japan, UK, and Mexico to support these activities.

### **Faculty at Calvin College (2010)**

- Taught a Circuits Analysis and Electronics lab.

### **Project Manager at DornerWorks (November 2009 – March 2011)**

- Project manager for aerospace and automotive customers. 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 RTOS.
- Managed teams doing requirements, development, and testing of software for several automotive products.

### **Technical Lead at DornerWorks (September 2008 - November 2009)**

- Technical lead for select projects of an aerospace customer. Participated in project definition, regular status meetings, and issue resolution with the customer.
- Led a team that developed 1500+ DO-178B Level A requirement based tests for 220+ requirements for a VxWorks RTOS Ethernet driver. Also 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)**

- Embedded hardware and software design, development, and test for customer projects.
- Developed a DO-178B Level A compliant hardware support software for a VxWorks RTOS 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 to test aerospace products.

## COMPUTER PROFICIENCIES

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### *Programming Languages*

- *Proficient:* C
- *Familiar with:* Ruby, C++, X86/ARM assembly, VHDL, Verilog

## EDUCATION

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**Bachelor of Science in Computer Science**

# NICHOLAS GOOTE

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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