

Matthew Goska

Mechatronics Engineer
Curriculum Vitae, June 2015

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Personal Statement My practical abilities to work on combined mechanical, electrical, and software problems are my greatest strength. I am motivated by working on technical challenges, and will often automate my own routine tasks so I am available to learn a new, complex skill.

Education University of Missouri-Rolla January 2003-May 2005 Rolla, MO
Masters of Science, Mechanical Engineering, working on the development and testing of machine tools and controllers, graduating May 2005, Cumulative GPA: 3.80/4.00

University of Missouri-Rolla August 1998-May 2003 Rolla, MO
Bachelors of Science, Mechanical Engineering, Magna Cum Laude, Cumulative GPA: 3.56/4.00

- Formula SAE student design team, 4 years, various positions- Developed, fabricated and tested single passenger open wheel race cars

Work Experience **CNC Controls Applications Engineer**
Siemens Industry, Inc. May 2005-January 2011 Elk Grove Village, IL
I worked with builders of specialized CNC equipment to develop new machine concepts based on the Siemens product line of CNC controllers. The job ranged from 50 to 75% travel, giving me very practical experience with the Sinumerik 840D family of controls.

Job tasks:

- Commissioning of CNC machinery, including PLC programming and safety logic
- Servo Optimization
- Operator Interface development and process automation
- Developing and conducting customized training for operators and builders
- Machine calibration and programming for up to 7 DOF systems.

Manufacturing processes:

- Milling
- Automated Fiber Placement
- Aerospace drilling and assembly
- Waterjet

CNC Mechatronics Engineer

Siemens Industry, Inc. January 2011-Present Elk Grove Village, IL
The change in job title within the same Siemens department was a transition from a general purpose controls engineer to a specialist, working on complex problems. Typically, the most challenging part of a project was isolating the problem source between all the mechanical, electrical, control software, and calibration possibilities.

Job tasks:

- Create custom software on the fly to solve unique problems
- Create training documentation for colleagues and customers
- Develop software tools to automate diagnostic processes
- Preparing detailed technical reports for management and technical audiences
- Isolation of surface finish defects caused by machine errors
- Vibration / modal analysis with accelerometer based data

CAD Technician and Designer, Machinist

Astech Machine Tool May 2002-May 2005 Orchard Farm, MO

- Developed and built custom motorcycle parts, from part concept through fixturing, CNC programming, and production
- Drew blueprints for in-house parts and external customer parts, for motorcycle and aerospace components

Research Assistant/Graduate Research Assistant

University of Missouri-Rolla September 2001-May 2005 Rolla, MO

- Developed retrofits for a 3 axis CNC mill and a Friction Stir Welder
- Both projects included:
 - I/O and panel layout
 - Developing all logic, mechanical modifications, wiring diagrams
 - Implementation of mechanical and electrical upgrades
 - Designing and programming machine controllers and GUIs
- Teaching Assistant for a controls lab, covering data acquisition and PLC programming

**Software,
Currently
Proficient**

Control Software: Step 7 v5.5, MATLAB 2015

Other: MS Office, MS Visio, Visual Basic 6.0, MS VBA

**Software,
Formerly
Proficient**

Control Software: LabView

CAD\CAE: AutoCAD2000, Ideas8, UniGraphics18