# Derek C. Welty

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## Education

**Missouri University of Science & Technology** 

Rolla, MO

MS IN ELECTRICAL ENGINEERING

Aug 2013 – May 2018

GPA: 4.0/4.0

**Missouri University of Science & Technology** 

Rolla, MO

BS IN ELECTRICAL ENGINEERING, MINOR IN MATHEMATICS

Aug 2008 - Dec 2012

GPA: 3.93/4.0

## Experience \_\_

**ELECTRICAL ENGINEER III** 

Garmin International Olathe, KS

SENIOR DESIGN ENGINEER

Mar 2017 – Present

• Designed and developed complex PCBs with analog, digital, high-speed, and RF circuitry

- Conceptualized and materialized automotive mass production consumer infotainment electronics
- Project Engineer leading system design and coordinating inter-disciplinary collaboration
  Directed and collaborated with factory team in Taiwan to design for testing and manufacturability
- Tested and debugged hardware/software issues for technical root cause and corrective actions

#### **DOE National Security Campus, Managed by Honeywell**

Kansas City, MO

Jan 2013 – Mar 2017

- · Lead test engineer architecting/implementing hardware/software solutions for scalable test infrastructure
- Defined test plans and electrical verification methodologies for board level and top level systems
- · Interfaced with government customers and supported earned value management project planning
- US Government Security Clearance

#### **Sprint Nextel Corporation**

Overland Park, KS

NETWORK ENGINEER INTERN

• Designed and implemented a VoIP Android IMS client using Java

May 2012 - Aug 2012

- Debugged client/server communications by analyzing network packets and protocols
- Utilized network and streaming protocols such as UDP, SIP, and RTP

## Cargill Corn Milling Inc

Eddyville, IA

May 2011 - Dec 2011

PRODUCTION MANAGEMENT ENGINEER CO-OP

- Served as a project engineer/manager for various factory installations
- Focused on power, automation, and maintenance projects
- Hired and led a team of contractors to carry out construction projects

**Lumate, LLC** St. Louis, MO

UI/UX DEVELOPER

Oct 2010 – Mar 2015

- Created in-house and customer specific graphics for mobile applications (Android, iOS)
- Supported back-end web development (Python, jQuery, HTML)
- · Interfaced directly with customers creating logos, flyers, posters, apparel designs, and brochures.

### Skills

Programming: VB.NET, Python, Java, MATLAB, Powershell, Github, Subversion, TestStand, ADB, VISA Lab Equipment: Oscilloscopes, DMM, VNA, power supplies, multi-meters, Raspberry Pi, Arduino, PXI Software Tools: Schematic capture, PCB layout, Mentor Graphics, CADSTAR, OrCad, SPICE, Solidworks

**Special Training:** Advanced GNSS/GPS, Radar Systems Certificate, MIL-STD 1553 **Graphic Design:** Adobe Photoshop, Adobe Illustrator, LaTeX, HTML, Bootstrap

Miscellaneous: MS Office, Android, Linux, Windows, Atlassian suite

## **Awards**