# Derek 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 \_\_

**Garmin International** Olathe, KS

SENIOR DESIGN ENGINEER Mar 2017 - Present

· Conceptualized and materialized automotive mass production consumer infotainment electronics

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

**ELECTRICAL ENGINEER III** 

Jan 2013 - Mar 2017 · Lead test engineer architecting/implementing hardware and 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

May 2012 - Aug 2012

- Developed VoIP Android IMS client using Java
- Debugged client/server communications by analyzing network packets
- Utilized protocols such as UDP, SIP, and RTP

#### **Cargill Corn Milling Inc**

Eddyville, IA

PRODUCTION MANAGEMENT ENGINEER CO-OP

May 2011 - Dec 2011

- Served as a project engineer/manager for various installations
- Focused on power, automation, and maintenance
- · 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)
- Back-end web development (Python, ¡Query, 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:** Photoshop, Illustrator, LaTeX

Miscellaneous: MS Office, MS Project, Excel, Android, Linux, Windows, Jira

## Awards