

YANG WANG

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465 Northwestern Avenue ◇ West Lafayette, IN 47906

EDUCATION

Purdue University, West Lafayette

Ph.D. in Electrical Engineering

*Thesis: Design and Implementations of Open-Source Ag IoT Devices
for Farm Machinery Data Acquisition and Integrated Analytics*

Aug. 2015 – Present
Expected Graduation: May 2021

Purdue University, West Lafayette

B.S. in Electrical Engineering

Aug. 2010 – Dec. 2014

EXPERIENCE

Purdue University

Graduate Research Assistant

Aug. 2015 – Dec. 2016 *and* Jan. 2018 – Present
West Lafayette, IN

- Architected, implemented, and deployed open-source IoTs called ISOBlue (10+ units) for ISOBUS (CAN) and GPS data collection from agricultural machinery. Maintained device to Cloud data pipeline using Kafka and project website using Docusaurus.
- Applied Interacting Multiple Models (IMM) algorithm to collected GPS tracks of a combine harvester for automatically tracking machine locations and inferring harvesting states.
- Conducted research on farm logistics insights mining from collected CAN logs using DBSCAN clustering. Also performed extensive lexical and semantical analysis for reverse-engineering CAN logs.

Purdue University

Graduate Teaching Assistant

Jan. 2017 – Dec. 2017
West Lafayette, IN

- Developed new lab material for undergraduate analog circuit lab.
- Helped students for brainstorming and developing senior design projects.

Spensa Technologies Inc.

Embedded Systems Engineer

Jan. 2015 – May. 2015
West Lafayette, IN

- Implemented firmware and kernel tweaks for new base station launch.
- Assisted in adapter board PCB layout for new base station.

Spensa Technologies Inc.

Embedded Engineer Internship

May. 2014 – Dec. 2014
West Lafayette, IN

- Ported and tested legacy firmware to new hardware platform.

Keithley Instruments, LLC.

Test Engineer Internship

Aug. 2012 – Dec. 2012
Cleveland, OH

- Implemented faster test automation programs for auditing existing products.
- Troubleshooted and documented faulty products using oscilloscopes and DMMs.

TECHNICAL STRENGTHS

Embedded Systems

Linux kernel, Yocto, Android, PCB bring-up

Computer Languages

Python, MATLAB, C, C++, Shell, L^AT_EX, Java, Node.js, Verilog

Network Protocols

CAN & its derivatives (J1939, ISOBUS), MQTT

Databases

MySQL, TimescaleDB

Tools

Vim, Android Studio, Vector CANoe, Bitbake, Docker,
data science suite (Pandas, Numpy, Matplotlib)

Languages

English, Chinese, French