YANG WANG

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465 Northwestern Avenue ⋄ West Lafayette, IN 47906

EDUCATION

Purdue University, West Lafayette Aug. 2015 – Present
Ph.D. in Electrical Engineering Expected Graduation: May 2021
Thesis: Design and Implementations of Open-Source Ag IoT Devices for Farm Machinery Data Acquisition and Integrated Analytics

Purdue University, West Lafayette Aug. 2010 – Dec. 2014
B.S. in Electrical Engineering

EXPERIENCE

Purdue University Aug. 2015 – Dec. 2016 *and* Jan. 2018 – Present
Graduate Research Assistant *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 anlaysis for reverse-engineering CAN logs.

Purdue University Jan. 2017 – Dec. 2017
Graduate Teaching Assistant *West Lafayette, IN*

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

Spensa Technologies Inc. Jan. 2015 – May. 2015
Embedded Systems Engineer *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. May. 2014 – Dec. 2014
Embedded Engineer Internship *West Lafayette, IN*

- Ported and tested legacy firmware to new hardware platform.

Keithley Instruments, LLC. Aug. 2012 – Dec. 2012
Test Engineer Internship *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, LaTeX, 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