YANG WANG

+1-765-637-6099 ◇ wang701@purdue.edu ◇ waterkingwatergoat.com
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 — Jan. 2018 – Present
Graduate Research Assistant — *West Lafayette, IN*

- Performed extensive lexical and semantical anlaysis for CAN data forensics. Successfully reverse-engineered key machine parameters like auger on/off, header rotation, etc. for multiple combine harvesters.
- Performed substantial research on applying filtering (Kalman Filter and its extensions) and clustering (DBSCAN and OPTICS) algorithms for GPS trajectory correction, mining, and anomaly detection.

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

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

Purdue University — Aug. 2015 – Dec. 2016
Graduate Research Assistant — *West Lafayette, IN*

- Architected, implemented, and deployed 10+ ISOBlue 2.0 units for ISOBUS (CAN) and GPS data collection from agricultural machinery. Implemented device-to-Cloud data pipeline using Apache Kafka. Maintained documentations and managed project website.

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

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

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	Embedded Linux, Yocto, Android, Virtual Terminal, PCB design & layout
Computer Languages	Python, MATLAB, C, C++, Shell, LaTeX, Java, Node.js, Verilog
Network Protocols	CAN, J1939, ISOBUS, MQTT
Databases	MySQL, TimescaleDB
Tools	Python data science packages (pandas, numpy, sklearn, matplotlib), Vim, Android Studio, Vector CANoe, Bitbake, Docker, Git, EAGLE
Languages	English, Chinese, French