

JOSHUA HARMON
joshua.harmon@wisc.edu

EDUCATION

Masters of Science in Agricultural Engineering
University of Wisconsin, Madison, WI
Dr. Brian Luck, Advisor

Graduation Sept. 2016

Thesis Research: Time-Motion Analysis of Forage Harvest Logistics

- Created models of haylage and corn silage production systems by logging GPS position and CAN data from working equipment during field operations on large commercial dairy
- Models used to observe and manage inefficient or idle machinery during harvest

Teaching Assistant: Farm Industry Short Course

- Precision Agriculture

Bachelor of Science in Agricultural Engineering
University of Kentucky, Lexington, KY

Graduated May 2014

LEADERSHIP AND ACTIVITIES

- *Active Member, UW Quarter Scale Tractor Team* *2014-Present*
 - *BSE Student Branch Officer, Ag Student Council Representative* *2013-2014*
 - *Active Member, American Society of Agricultural and Biological Engineers* *2013-Present*
 - *Student Advisor, Freshman Engineering Orientation* *2011-2014*
-

EXPERIENCE

Engineering Intern

Case New Holland Agriculture, New Holland, PA

Summer 2014

- As part of Innovations Group designed test structure and evaluated new moisture sensing technology on round balers using data acquisition system
- Assessed new 120 ft. boom sprayer by recording wing excitation using accelerometers, pressure transducers and stroke sensors
- Became proficient with electrical design, including schematics, wiring diagrams and sensor hardware
- Skilled with heavy equipment operation and handling

Lab/Tech Assistant

Biosystems Engineering Lab, University Of Kentucky

Fall 2012 – Spring 2014

- Evaluated the effectiveness of harvesting equipment to maximize energy density of switchgrass and miscanthus bales used in biofuel production
- Tested grain volume in grain bins using 3D laser distance measurement and provided summary results to elevator operators
- Designed and built scale tractors that were controlled by GPS and remote control
- Tested autonomous tractors in laboratory environment

Engineering Intern

Clark Material Handling, Lexington, KY

Summer 2013

- Performed failure analysis tests on new product designs
- Designed components for new product line
- Implemented process improvement methods in the manufacturing area for forklifts and burden carriers