

John Cole

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OBJECTIVE

Experienced engineer with a strong desire to be involved in agricultural field. Motivated to use education and experience to ultimately benefit farming families and American agriculture.

EDUCATION

University of Kentucky

Lexington, KY

Master's Degree – December 2004

Major: Biosystems and Agricultural Engineering

Description: Working as a research assistant in conjunction with thesis project research. Research focuses on precision agriculture, specifically on applications involving GPS systems. Project involves the design, construction, and testing of a kinematic/dynamic GPS receiver test track system. Also involves full-time class load. Courses include instrumentation and data acquisition, finite element method, precision agriculture, GIS, statistics and applications of calculus in heat and mass transfer.

University of Kentucky

Lexington, KY

Bachelor's Degree – December 2002

Major: Biosystems and Agricultural Engineering

Description: As a biosystems and agricultural engineering major, a course of study common to all engineering disciplines is followed: mathematics, physics, chemistry, and engineering. In addition, we receive training in biological sciences. My emphasis within the major was Machine Systems Automation Engineering. This emphasis is akin to Mechanical Engineering in coursework. Engineers in this area work with fundamental concepts including: system dynamics, kinetics, automated controls, machine design, kinematics, fluid power (hydraulics), soil dynamics, plant-machine interactions, and digital electronics. Other coursework included statics, economics, circuits, CAD use (ProE and AutoCAD), and finite element analysis which included use of ANSYS.

CERTIFICATES AND LICENSES

Licensed Professional Mechanical Engineer in State of Tennessee

North American Board of Certified Energy Practitioners (NABCEP) PV Entry

Level Exam – passed

COMPUTER SKILLS

Alibre, ArcGIS, Farmworks, Inventor, FEMPRO (Algor), Solid Edge, ANSYS, FEMap, ProE, AutoCAD, MATLAB, ForTran77, Word, Excel, PowerPoint, Basic

WORK EXPERIENCE

Republic Doors and Frames Milan, TN 4/2012 – present
Manufacturing/Mechanical Engineer

- Specify and oversee implementation of capital improvement projects involving machinery used fabricate, assemble and package industrial and institutional steel doors and frames.
- Assist engineering staff with engineering projects.
- Assist maintenance personnel in troubleshooting and problem resolution.
- Design and produce fabrication prints for manufacturing equipment.
- Evaluate and improve upon current manufacturing processes.

American Ordnance, LLC Milan, TN 7/2009 – 3/2012
Project Engineer

- Specify and oversee implementation of capital improvement projects involving machinery used to load, assembly and pack military munitions.
- Assist other engineering staff with engineering projects.
- Supervise work on contractors bought on-site for construction, demolition and clean-up work.
- Improve upon existing manufacturing processes and equipment.

Greenfield Products, Inc. Union City, TN 1/2008 – 7/2009
Design Engineer

- Carry out design projects of varying scope from inception to design completion.
- Design of fork truck attachment components, container handling attachments and other large weldments.
- Modeling components and assemblies in a 3D CAD program and associated drafting.
- Engineering calculations (forces, stresses and life of systems).
- Interact with production engineers to resolve design issues.
- Interact with manufacturing and production personnel to resolve problems and discuss possible solutions.

Link-Belt Construction Equipment Co. Lexington, KY 10/2004 – 1/2008
Design Engineer

- Design of structural components of cranes as a member of a focused design team.
- Modeling components and assemblies in a 3D CAD program and associated drafting.
- Engineering calculations (forces, stresses and life of systems).
- Interact with production engineers to resolve design issues.
- Work in prototype facilities in the building of new crane models to be used in load and function testing.
- Interact with manufacturing and production personnel to resolve problems and discuss possible solutions.
- Attended Lincoln Electric's Blodgett's Welding Design school.

University of Kentucky Lexington, KY 1/2003 - 12/2004
Research Assistant/Graduate Student

- Design, construction, and testing of a dynamic/kinematic GPS receiver testing platform as it pertains to uses in the field of precision agriculture.
- Responsible for all phases of the design, construction, and testing/evaluation of the test system.
- Involves the coordination of faculty, staff and shop employee efforts.
- Teaching lab assistant for DC circuits and microelectronics undergraduate course.

O'Conner Engineering, Inc. Union City, TN 5/2000 - 8/2002
Engineering Technician

- Full-time summer engineering technician for a radar research and development company.
- Included lab and field work dealing with hardware and electronic components.
- Involved in marketing, project management, researching and writing grant proposals, and customer relations.

University of Kentucky Soybean Breeding Research Project
Lexington, KY approx. 1999 - 2004
Student Assistant

- Part-time, during-semester student worker in genetic soybean and corn research.
- Participated in greenhouse and in-field planting, care and harvesting.
- Assisted in harvesting university test plot soybeans via small combines.

AFFILIATIONS

- American Society of Agricultural and Biological Engineers (ASABE)

Member since 2004

- National Society of Professional Engineers (former member)

PAPERS & PUBLICATIONS

Cole, J. T., T. S. Stombaugh, and S. A. Shearer. 2004. Development of a test track for evaluation of GPS receiver dynamic performance. ASAE Paper No. 041060, St. Joseph, MI:ASAE.

Stombaugh, T. S., **J. Cole**, B. K. Koostra, S. A. Shearer, and M. W. Veal. 2005. Comparison of GPS receiver dynamic performance using a test fixture. ASAE Paper No. 051086, St. Joseph, MI:ASAE.

Stombaugh, T. S., **J. Cole**, S. A. Shearer, and B. K. Koostra. 2005. A test facility for evaluating GPS dynamic accuracy. In Proc. of the Fifth European Conference on Precision Agriculture, pp. 605-612. Uppsala, Sweden, 8-10 June.