

Randy Brierley

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Experience

ENGINEERING TECHNICIAN | DESERT CONTROL AMERICAS | 5/15/25 – CURRENT

Supported field deployment of mobile soil enhancement equipment for agricultural applications. Troubleshot mechanical, electrical, and automation-related issues during operations and performed sensor calibration and system validation. Implemented electrical and control system updates under engineering direction, including integration of automation components and modifications to power distribution systems ranging from 24 VDC to 480 VAC three-phase.

Designed and built instrumented test apparatus for R&D validation and performance validation. Modeled components and assemblies in Autodesk Inventor for next-generation equipment development and collaborated with engineers, field technicians, and manufacturing to improve reliability and design refinement.

LEAD INSTALL AND STARTUP TECHNICIAN | MYLAND COMPANY | 5/20/2021 – 6/1/2024

Led installation and commissioning of algae bioreactor systems at agricultural irrigation sites. Integrated equipment into existing infrastructure, developed bills of materials, coordinated logistics, and supervised field technicians. Managed electrical integration from 480 VAC three-phase power to 12 VDC systems and delivered fully operational systems for regional handoff.

Collaborated with R&D to improve system design and serviceability. Produced SolidWorks CAD models of assemblies, prototyped custom components, and coordinated fabrication with internal and third-party manufacturers.

FIELD ENGINEER INTERN | HAYDON BUILDING CORPORATION | 5/30/19 – 8/10/19

Supported construction of a data center by coordinating mechanical and electrical system installation. Reviewed drawings, monitored cooling and power distribution systems for compliance and schedule adherence, and assisted with system testing and burn-in. Facilitated communication between engineers, architects, and owners to resolve conflicts and delays.

WELDER/FABRICATOR | JV SMITH FARMS | 6/19/18 – 8/20/18

Repaired farm implements and irrigation equipment and fabricated custom components. Performed mechanical repairs on tractors and heavy equipment.

ENGINEERING INTERN | JOHN DEERE | 5/29/17 – 8/18/17 & 12/16/17 – 1/4/18

Assisted in testing experimental tractors at a John Deere test site. Installed and evaluated prototype components, diagnosed mechanical issues, instrumented tractors with sensors and control modules, and analyzed performance on dynamometers. Coordinated with multiple test sites to standardize dynamometer program setup.

TRACTOR OPERATOR / MECHANIC | HARRISON FARMS | 5/30/16 – 8/19/16

Operated agricultural equipment including tractors, balers, rakes, and loaders. Maintained and repaired tractors, implements, and trucks.

Skills

- Prototype testing and performance evaluation
- CAD modeling and prototyping (SolidWorks and Autodesk Inventor)
- Electrical power distribution (three-phase to low-voltage DC systems)
- Instrumentation and controls diagnostics (sensors, actuators, PLC-based systems)
- Mechanical and electrical troubleshooting
- Fabrication and field integrating
- Agricultural equipment operation and repair
- Intermediate German

Education

B.S. Mechanical Engineering, expected 2026

Northern Arizona University

Minor: Physics