

Curtis Whitaker

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MECHANICAL ENGINEER

An engineer with a Bachelor of Science in Mechanical Engineering, Bachelor of Science in Exercise Science and 10+ years of experience in multiple engineering disciplines. Successfully complete projects efficiently and always with customer satisfaction in mind. Work well within a team or independently to solve complex problems in a time and cost-effective manner. A willingness to learn and adapt as well as excellent analytical, computer and communication skills provide me with the tools needed to succeed in all aspects of my career.

CORE COMPETENCIES

- Product Development
- Procedure & Testing Improvement
- Customer Support
- Microsoft Office
- 3D Printing
- Corrosion Management
- AutoCAD / Fusion 360
- Quality Control
- PC Steel Strand
- Multi-Project Management
- Process Controls
- Water Treatment

PROFESSIONAL EXPERIENCE

Sumiden Wire Corp. – Dayton, TX
Mechanical Engineer

May, 2017 – Present (Full Time)

PC Steel Strand Production Engineering

- Provide engineering support to manufacturing and maintenance. This includes monitoring and evaluating product quality, analyzing and resolving manufacturing problems, and providing immediate and effective process troubleshooting.
- Work closely with raw material suppliers to improve performance and maintain effective product feedback. Review physical and chemical properties of raw materials.
- Monitor manufacturing data to evaluate product quality and production efficiency to support production goals. This includes effective process control counteraction initiatives.
- Closely monitor wastewater treatment. This includes monitoring pH, volumes, chemistries, maintenance and scheduled quality samples.
- Initiate design improvement recommendations involving process and equipment optimization. This includes cost-reductions and budgetary control of current and future processes.
- Use Fusion 360 + a 3D printer to conceptualize and prototype custom parts.
- Maintain all aspects of quality, including standards (ASTM), process standards, customer quality, internal quality, vendor quality documentation and prepare reports as necessary. Inspect physical raw material and raw material data, material in production, finished product, and all testing results data for any deviations outside specifications.
- Project engineer for a \$10MM+ expansion project starting Fall of 2022 with an estimated completion date of July 2023.
- Present reports monthly to board of directors.

Technical Sales Engineering

- Regularly communicate with customers to provide product usage solutions and address any quality concerns.
- Travel to customer locations to assist with first-time installations or to address any issue that cannot be solved remotely.

PROFESSIONAL EXPERIENCE (cont.)**CenterPoint Energy – Houston, TX
Mechanical Engineer****July, 2015 – May, 2017 (Full Time)****Electrical Transmission Reliability & Maintenance Engineering**

- Support project management with cost analysis, planning, scheduling, and coordination of projects.
- Design corrosion prevention/control techniques for transmission lattice towers, steel poles and underground steel foundations.
- Maintain structural integrity of electrical transmission towers, steel poles, wood poles and foundations.
- Designate coating type and when to coat steel lattice towers and steel monopole structures above and below grade.
- Assist in bidding evaluations and regularly communicate and coordinate with vendors.
- Develop spreadsheets to perform predictive modeling on various assets.
- Use PLS CAD for pole and tower design.
- Heading up a multi-year project that researches the exact cause for increased corrosion on lattice towers with grillage foundations in conjunction with PCS towers. Preventative systems based on findings will be designed, tested and installed.

**Cimarron Affiliates, llc – Houston, TX
Mechanical Engineer****Jan, 2008 – May, 2011 (Part Time)
May, 2011 – July, 2015 (Full Time)****Mechanical Engineering**

- Design, assemble, install and test data collection systems (SCADA) incorporating analysis and interpretation of outputs for oil & gas production systems.
- Interact regularly with customers.
- Proficient in AutoCAD. Design components used in SCADA systems with AutoCAD program.
- Construct drawings in AutoCAD to assess structural integrity of underground storage caverns and plot wellbore paths.
- Monitor cathodic protection to verify mechanical integrity on pipelines.
- Extensive experience in product cost analysis.

Petroleum Engineering

- Research well histories and design schematics to assist in work over projects.
- Use AutoCAD to plot wellbore paths and underground natural gas storage caverns in 3d.
- Install electronic flow meters (EFMs) and electronically & pneumatically operated control valves.
- Spent 4 months (Aug. 2014 to Nov. 2014) on location in N. Oklahoma where we worked over 3 oil wells. Assisted in down-hole tool selection, scheduling and cost management.
- Assess economic value of oil and gas assets through economic software and custom designed spreadsheets. Familiar with IHS.
- Performed economic assessments for Hendry Energy Services on over 100 existing oil wells in Felda, Racoon Point and Bear Island fields in South Florida.
- Assist with artificial lift system design including pumping units, plunger lift, gas lift and hydraulic lift systems.
- Completed a project for Three Forks Resources where output pressures and run times of three-phase compressors were examined to increase the run time efficiency from 50% to over 90%.
- Used data from precision sensors and meters to successfully fine tune pumping units to produce the best water-oil ratio while reducing wear on pump, rods and tubing. This data also helped to prevent the wells from pumping off, improving production efficiency.

PROFESSIONAL EXPERIENCE (cont.)**Electrical Engineering**

- Design off-grid solar systems for remote data collection systems.
- Create networks using 900MHz radios, PLCs and voltage/current output sensors.
- Monitor cathodic protection on pipelines.
- Use ProfiCAD to draw electrical layouts.
- Developed an Excel spreadsheet where I input parameters and it accurately outputs the data needed for correctly sizing solar panel and battery sizes for different projects.

Wood Group Control Telecom, L.P. – Katy, TX
Assembly Technician**Dec, 2003 – Aug, 2004**
Full time work intervals (summer, winter breaks)

- Assembled, tested and packaged down-hole sensors and surface interface units.

EDUCATION**The University of Mississippi***Bachelor of Science in Mechanical Engineering (B.S.M.E)***Oxford, MS**

Graduation Date: May, 2011

Delta State University*Bachelor of Science in Exercise Science (B.S.)**Minor: Biology***Cleveland, MS**

Graduation Date: May 2007

CERTIFICATIONS

- Certified Engineer in Training (EIT)
- Certified AutoCAD User
- Corrosion Technician
- Cathodic Protection Level 1

COMPUTER SKILLS

- MS Office & Mac OS
- AutoCAD, Fusion 360, PLS CAD
- Microsoft Excel

HOBBIES

Golf • 3D Printing • Fishing • Exercising • Woodworking