

PROFESSIONAL SUMMARY

- Customer-focused engineer who champions exhaust gas sensors for global markets to limit emissions worldwide.
- Engineer with the front to end experience of developing technology with a deep understanding of client requirements.
- Technical expert who collaborates with global cross-functional teams to solve problems with standardized strategies.

EXPERIENCE

Robert Bosch LLC, Anderson, SC

Quality Engineer – exhaust gas sensing elements, April 2020 - Present

- Collaborates with a diverse global team to investigate customer-reported issues from initial problem reporting to complete root cause analysis to final reporting to customer
- Actively manages internal production issues for 17 product types produced in 20,000 part Lots through daily meetings and individual follow-up with manufacturing and operation team members
- Provides international customer support for 8 ceramic element types used in global markets by voicing customer concerns to production departments and resolving technical challenges
- Maintains a 0.25 PPM defect rate for clean and grey room workflows that produce 22,000,000 ceramic oxygen sensing elements a year
- Oversees teams comprised of operation, manufacturing, and development engineers through 8D problem solving projects and FMEA reviews
- Restructured regular audit plans to reduce scrap rates, yielding \$30,000 a year in savings

Development Engineer – exhaust gas sensors, October 2016 – March 2020

- Orchestrated 9 exhaust gas sensor projects through the development cycle producing 576,000 parts per year for OEM and Aftermarket customers
- Directed documentation creation, organization, and communication for Agile oxygen sensor development to create a new state-of-the-art oxygen sensor generating \$19 million a year in Indian and Chinese markets
- Executed engineering change process to implement new components to satisfy developing environmental regulations and prevented \$3.1 million loss in yearly revenue
- Delivered 118 sample orders through coordination of internal and external partners to produce 1428 sample parts generating \$250,000 in revenue
- Resolved product returns for customers by conducting root cause analysis and presenting results to internal departments for production resolution
- Designed 3D printed hardware to laser mark 8 sample oxygen sensors at one time to reduce lead time and increase ergonomics of oxygen sensor sample production

AFL-Alcoa Conductor Accessories, Duncan, SC

Co-op Engineer, Spring 2014, Fall 2014, Summer 2015, Spring 2016

- Developed accessories for high voltage overhead power lines and bus stations to IEEE standards using several state-of-the-art techniques such as 3D printing and finite element analysis for rapid prototyping
- Created test procedures and fixtures to investigate customer-reported failures and prepared comprehensive test reports for internal and external customers
- Performed onsite product demonstration for customers in the public electric utility sector

EDUCATION

Clemson University, Clemson, SC

B.S. Mechanical Engineering, August 2016

HONORS

Eagle Scout Award Recipient

Engineer in Training (EIT)

Pi Tau Sigma Honor Society

TECHNICAL SKILLS

CAD Software: Proficient with SolidWorks, Experienced with Siemens NX and Autodesk Fusion 360

Computer Applications: Proficient with MATLAB, Microsoft Office, Microsoft Outlook

Problem Solving Methods: Expert with 8D, FMEA; Experienced with DRBFM, 5S, Kepner-Tregoe, Shainin, and Lean

Computer Programming: Hands on experience with Python, MATLAB with Simulink, C, HTML