

**Professional Resume
of
BENJAMIN L. FISCHER, P. E.**

October 2019

I. General Information

Mechanical Engineer
Schaefer Engineering, Inc.
Wentzville, Missouri

II. Professional Summary

A. Education:

Bachelor of Science
Mechanical Engineering
Missouri University of Science and Technology
Rolla, Missouri
2007

Master's Degree
Business Administration
Columbia College
Jefferson City, Missouri
2011

B. Experience:

September 2017 to present
Position: Mechanical Engineer
Schaefer Engineering, Inc.
Wentzville, Missouri

Responsible for a wide range of engineering projects including but not limited to: equipment, product, and vehicular systems failure analysis, fire origin and cause analysis, commercial/industrial accident investigation, explosion investigation, electrocution, water infiltration, carbon monoxide, solar system fire investigation, and accident reconstruction.

Experience (continued):

Jan 2013 to 2019

Position: Owner
 Fischer Solar LLC
 Solar/Electrical Contractor
 Marthasville, MO

Responsible for all aspects of design, permitting, and installation of photovoltaic electrical PV solar systems for both grid-tied and off-grid battery storage solar installations. Installed both new electric services and integrated systems with existing building services in both residential and commercial systems. Performed field inspections, troubleshooting, and repair services. Developed and distributed independent software to monitor Zigbee based solar inverters when the manufacturer's system failed.

April 2011 to September 2017

Position: Lead Mechanical Engineer / Research & Development
 WEG
 Washington, Missouri

Responsible for mechanical and electrical design and analysis of next generation product lines for electrical utility low/medium/high voltage systems. Provided technical support for facility manufacturing and safety operations. Redesigned existing product mechanical and electrical aspects for improved safety, reduced cost, and better performance with a focus on renewable energy products such as wind turbine and solar photovoltaic transformers. Designed integrated high amperage LV breaker systems and buswork, as well as supported electrical controls design. Worked directly with client engineers in commercial/industrial, and renewable energy fields to develop best practices in the design, integration, and operation of large scale solar and wind farms in both electrical and mechanical aspects. Ensured product and performance compliance with applicable IEEE/ANSI/ASTM/UL, and ISO standards. Provided technical diagnostic and repair support to field service teams and clients. Developed software to automate custom drawings development for clients.

June 2007 to April 2011

Position: Mechanical Engineer / Process Engineer
 ABB Inc
 Jefferson City, MO

Responsible for developing automated machinery such as PLC controlled autonomous cart delivery systems and ergonomically designed power-assist vehicles to improve safety of processes and reduce injury rates. Managed multi-million dollar facilities development projects involving overhauling and upgrading older equipment, development, specification, and installation of new manufacturing lines, and installation of large industrial manufacturing equipment. Provided process engineering and design engineering support for distribution class liquid filled electrical transformers. Led a number of kaizen and lean manufacturing projects related to 5S, safe and efficient work station design to facilitate ergonomic work systems, and mistake-proofing assembly to improve product quality. Traveled domestically and internationally to evaluate a wide variety of facilities in differing industries for best practices and manufacturing excellence.

III. Professional Registration

Registered Professional Engineer (PE) in the States of Missouri, Illinois, Iowa, Kansas, & Arkansas
MO Registered Safety Consultant
FAA Part 107 Certified sUAS remote drone pilot
NAFI Certified Fire and Explosion Investigator (CFEI)
NAFI Certified Vehicle Fire Investigator (CVFI)

IV. Professional Affiliations

American Society of Mechanical Engineers (ASME)
National Fire Protection Association (NFPA)
National Association of Fire Investigators (NAFI)
International Association of Arson Investigators (IAAI)
Society of Automotive Engineers (SAE)

V. Continuing Education

2019 - NAFI - Lexington, KY Vehicle Fire Investigation Training Program

2019 - MO IAAI - Springfield, MO Fire Prevention & Investigation Seminar - "Introduction to Materials and Metallurgy" (Aaron Barklage, P.E.)

2019 - MO IAAI - Springfield, MO Fire Prevention & Investigation Seminar - "Electrical Appliance and Device Fires" (Rob Markiewicz, P.E.)

2019 - MO IAAI - Springfield, MO Fire Prevention & Investigation Seminar - "Bits, Bytes, Flights and More: New Technology for the Fire Investigator" (Todd Metzger, P.E.)

2019 - MO IAAI - Springfield, MO Fire Prevention & Investigation Seminar - "Explosives Investigations" (Pat Carolan, FBI)

2019 - IAAI - Peoria, IL Fire Prevention & Investigation Seminar - "Electricity and Fire"

2019 - IAAI - Peoria, IL Fire Prevention & Investigation Seminar - "Creating an Effective CV"

2019 - IAAI - Peoria, IL Fire Prevention & Investigation Seminar - "Conducting your investigation for the Courtroom"

2019 - IAAI - Peoria, IL Fire Prevention & Investigation Seminar - "Putting it all Together"

2019 - Aerial Lift Operator Training, Safety Training Resources – St. Charles, MO

2019 - Environmental Safety Training Center - St. Louis, MO "Asbestos Operations & Maintenance 4-hour Refresher Course"

2018 - Faro 3D Scanning Training Course – "Scan to Deliverable"

2018 - IAAI - Champaign, IL Fire Prevention & Investigation Seminar - "Fire Dynamics and the Fire Scene"

2018 - IAAI - Champaign, IL Fire Prevention & Investigation Seminar - "Origin and Cause"

2018 - IAAI - Swansea, IL Fire Prevention & Investigation Seminar - "Gas Fired Appliances - How They Can And Cannot Be An Ignition Source "

2018 - IAAI - Swansea, IL Fire Prevention & Investigation Seminar - "Open Source Intelligence Techniques"

2018 - IAAI - Swansea, IL Fire Prevention & Investigation Seminar - "Passing the test: Expert testimony in MO/IL"

2018 - NAFI - Dallas, TX Fire Prevention & Investigation Seminar - "Electricity and Fire"

2018 - NAFI - Dallas, TX Fire Prevention & Investigation Seminar - "Explosion Dynamics"

2018 - NAFI - Dallas, TX Fire Prevention & Investigation Seminar - "Origin and Cause Determination"

2018 - NAFI - Dallas, TX Fire Prevention & Investigation Seminar - "Water Based Suppression Systems"

2018 - NAFI - Dallas, TX Fire Prevention & Investigation Seminar - "Diagramming and Scene Photography"

2018 - NAFI - Dallas, TX Fire Prevention & Investigation Seminar - "Evidence Collection"

2018 - NAFI - Dallas, TX Fire Prevention & Investigation Seminar - "Fire Pattern"

2018 - NAFI - Dallas, TX Fire Prevention & Investigation Seminar - "Fire Chemistry and Dynamics"

2018 - NAFI - Dallas, TX Fire Prevention & Investigation Seminar - "Legal Considerations"

2018 - IPTM / UNF - Jacksonville, FL Automotive Crash Reconstruction - "Bosch© CDR Tool Technician Training by IPTM (Online)"

2018 - Environmental Safety Training Center - St. Louis, MO "16 Hour Asbestos Operations & Maintenance Training"

2017 - Fire Findings - Benton Harbor, MI Fire Prevention & Investigation Seminar - "Investigation of Gas and Electric Appliance Fires"

2017 - Arkansas IAAI - Heber Springs, AR Fire Prevention & Investigation Seminar - "Lightning Related Residential Fires & CSST"

2017 - Arkansas IAAI - Heber Springs, AR Fire Prevention & Investigation Seminar - "NFPA 921 & 1033 Updates"

2017 - AIA Continuing Education - Online Education Electrical Engineering - "Power Supplies Basics"

2017 - AIA Continuing Education - Online Education Mechanical Engineering - "Pressure Vessel Guidelines"

2017 - AIA Continuing Education - Webinar Forensic Engineering - "Forensic Engineering"

2017 - AIA Continuing Education - Online Education Electrical Engineering - "Basic Electrical Theory"

VI. Courses Taught

Introduction to Residential Solar Systems – May, 2019
Missouri – IAAI Conference, Springfield, MO