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JAMES E. KASPER

OBJECTIVE

I am a self motivated problem solver, well versed in computers and new technology, seeking a challenging position that would use strong, creative abilities to create, maintain, manage or improve applications in aerospace, manufacturing or other industrial environments. I possess effective communications skills to ensure proper standards and processes are met. I have experience and an inovative mind to allow for strong problem solving solutions and an ability to think outside of the box; to see a problem from various perspectives and create appropriate solutions.

QUALIFICATIONS

I currently work as an electrician for an ISO9015 specialty stainless steel and alloy company and I am familiar with AMS2750E and Nadcap requirements. I often repair very old equipment often with no schematics, sometimes upgrading the machines from contacts and relays to programmable logic controllers and variable frequency drives. I was constantly restoring bypassed components and devices to like factory or better conditions. I have helped with inventory and digitizing machine data, schematics and have even made the drawings for some that did not have any. Recently I moved departments into their combustion division where much of my previous experience was repeated.

I have been working in the heat treat industry for 20 years. I started from the ground up operating, then repairing furnaces. I started learning process controls and certifications.

I have been studying thermal and fluid dynamics and other advanced physics, metallurgy, and lean manufacturing/6 sigma/5 whys on my own. I took an artificial intelligence class given by Sebastian Thrun (the Stanford Professor that helped build the winner of DARPA's autonomous vehicle prize) and studied probabilities including Bayes Theorem, addition of noise and a few others in order to do my best in that course.

I designed, installed and controlled furnaces that operate between 300°F – 2000°F, some with Endothermic gas, used for carburization processes. I have worked on chillers that cool to -400°F I have designed both electrical and mechanical components. I helped to design the computer layout aesthetics and device choices for the control room equipment as well.

Furnaces were monitored and data-logged. I performed temperature uniformity surveys, system accuracy tests, and instrumentation calibrations.

I love learning new things. I am motivated, eager and willing. I can work on my own. I can organize and have directed small teams of 20 or so others.

EMPLOYMENT

Universal Stainless and Alloy Products - Bridgeville, PA
December 2018 – Currently employed
Electrician/ Combustion technician

Electrical repair and preventative maintenance for the central plant milling department, 3 laboratories and the machine shop. Milling machines, lathes, drills, grinders, presses, saws, polishing equipment, hardness testers, acid equipment, pumps, heaters, furnaces, some thousands of lights and controllers and valves and so much more.

As a side project, when I started, the status of the shop was atrocious and I organized and inventoried all of the electrical equipment.

A previous electrician had removed all the schematics from the machines and had them unlabeled in a mess. I was able to establish which pages went to each machine and was able to create a few from scratch by tracing all of the wires. I then digitized and created an organized online access for the milling machines, band saws and furnaces.

I started as a level 2 electrician and after taking Ramsay tests for PLCs, I moved my way up to the highest most job position in the plant as a level 4 electrician.

Brad Foote Gear Works - Pittsburgh, PA
December 2004 – December 2018
Heat Treat Maintenance

Repair and upkeep of cranes, endothermic generators, furnaces, computers, carbon analyzer and all other equipment in the heat treat department.

I also have repaired lathes, grinders, mills and other electrical issues in the entire plant.

I am responsible for the record keeping, testing, temperature uniformity surveys, certifications and all other aspects of the AMS2750E requirements to meet ISO9015 standards.

I was very involved with creating and filling 2 separate basements, each 30ft x 60ft x 12ft deep, with production equipment.

-Excavating, framing and pouring concrete.
-Reverse-engineered and upgraded 8 large pit furnaces.
-10,000 gal wash tank and a 35,000 oil quench tank.
-Electrical schematics and plumbing schematics for the additive air, natural gas and endothermic gas system used in carburizing.
-Gas train for the burner system.
-Re-designed the recuperative exhaust gas system we purchased from it's default use, in size and configuration to fit our furnaces.
-Determined work needed to be done and created a spreadsheet with a list from start to finish on each furnace to distribute work to other welders and fabricators and pipe-fitters to ensure job completeness.

Team Industries Inc. - Pittsburgh, PA
August 2004 - January 2005
Field Technician

In August 2004, Cooperheat/MQS was acquired by Team Industries Inc.

Cooperheat/MQS - Pittsburgh, PA
February 2004 - August 2004
Field Technician

Traveling to perform work on-site for power plants, steel mills, fabrication shops, foundries, glass making companies etc.

Using electric heating elements, applied heat to pipes and other areas of metal according to MIL specifications to aid in the preheat and post weld stress relief as required for new fabrication and repair work as well.

Using natural gas, propane, or heating fuel to aid in the drying process of ceramic insulators in furnaces or ladles. To assist in preheating furnaces or ladles. To melt and remove metal that has solidified due to unforeseen incidences in specially made train cars used for the transportation of molten metal and in furnaces or ladles.

Using non-destructive testing to check for cracks, fissures and other structural defects in steel vessels and many other items through use of ultrasound, x-ray, and electromagnetism using ferrous dust and chemical solutions.

In shop electrical repair on testing equipment like the capacitive discharge units used to apply thermocouples, portable magnets, black lights, controllers etc. In house calibration of all testing equipment (mostly chart recorders and controllers).

I designed and fabricated a 12 unit source for the electrical heating pads. It had 12 individual controllers a 24 point chart recorder and communication to control additional units as slaves.

Flame Metals Processing Corporation - St. Louis Pk., MN June 2000 - February 2004
Furnace Operator

Responsible for the parts to be fixtured into loads and then into internal quench style batch furnaces and tempering furnaces for carburization, carbonitriding, annealing, normalizing, aging, tempering, stress relief etc. Parts to be repackaged as received. Process documents followed carefully.

Aces Custom Installs - Minneapolis, MN
August 1995 - February 2004
Owner

Design, install, test and repair of audio, video and security for both the home and automobile. Several of my design installations won awards for both sound quality and SPL at various competitions.

Hodgman Handyman Services - Coon Rapids, MN
June 1997 - June 2000
Handyman

General repair and small upgrades for residential areas in the entire Twin Cities metro area.

EDUCATION

Dunwoody Institute - Minneapolis, MN
September 1996 - March 1998
Electronics Technology
Associates degree applied science (unfinished)

Roosevelt Sr. High - Minneapolis, MN
September 1988 - June 1993
Electronics
Automotive repair
Welding
Math (calculus)
Graduated (h.s. Diploma)

HOBBIES

I taught myself how to code 30 years ago using BASIC.
I make webpages and online apps using HTML, CSS, javascript, PHP, JSON, jQuery, XML, AJAX and SQL.

I used JAVA to work on some Minecraft Mods.

I used Eclipse a little to work on some Android apps.

I use Linux!

I love the Raspberry Pi and have learned a lot of Python to create apps for it. I also love the Arduino and have used c/c++ etc to write code and scripts for hundreds of little projects. I love automation and robotics, servos, steppers, sensors and all that.

I made a 3D printer and then bought a couple others. I built a variable speed turning machine for my wife to apply epoxy to tumblers. I own an oscilloscope, a function generator, lab quality power supplies and so many components.
One of my favorite sources for electronics is Adafruit.

I have a small workshop with a welder, drill press, grinder, saws and other things for basic fabrication. I have acquired most of the parts I need to build my own lathe.

REFERENCES

References are available upon request.