Ethan C. Pfeiffer

EthanPfeiffer345@outlook.com
Cell: 737-213-8558

Profile:

Manufacturing engineering and applied mathematics double major graduate. Started out in research working to find creative inventions and collaborations that could be applied towards renewable energy technologies. Transferred into automation, controls design, security, and PLC programming. A recent graduate from the University of Texas web development coding bootcamp with a passion for coding. Seeking to apply project management, programming knowledge, and experience.

Education:

- B.S. in Manufacturing Engineering & Applied Mathematics
  Texas State University – San Marcos, TX. Graduation December 2013
- Web development bootcamp graduate - University of Texas 2022

Patents:

- System and Method for Producing a Nano Metal Mesh using a Brittle Film Template for Lithography
- Method to Produce a Nanogap for Genetic Sequencing

Character qualities:

Dependable, high initiative, creative, self-starter, fast learner, thoughtful, honest, and hardworking

Professional Experience:

Gibraltar US, Director of Control Systems and Programming 05/2022-present

- Responsible for CAD drawings of control systems and PLC programming.
- Integrating Kuka robotic arms for welding applications
- Managing strong customer relations

Vertex Software, Quality Assurance Manager 12/2021- 05/2022

- Performed Quality Assurance during web development of websites.
- Integrated automated testing procedures for quality assurance.
- Promoted to Manager from engineer within the first month. Managing a team of three other quality assurance members
- Implemented Jira companywide for project management utilizing agile methods.
- Helped get a project back on track that was way behind because a project manager did a poor job and quit for the company's largest client.

System Plus Consulting Manufacturing and Costing Engineer 03/2021- 09/2021

- Performed product cost analysis and disassembly of modern consumer electronics.
- Took macro photography of PCBs, electrical components, and disassembly process.
- Used Xray microscopy and PCB CT analysis.
- Dismantled graphics cards and processed to discover the different voltage rails the PCB board used.
- Reorganized the dismantling process to improve dismantling reports.

Gibraltar US, Controls Engineer 05/2017- 03/2021

- Developed control systems designs for electric and hydraulic systems.
- Constructed a control panel fabrication shop and managed electrical control panel production.
- Procured component supply lines and vendors.
- Programmed PLCs using ladder logic and Human Machine Interfaces.
- Performed Army Corp Access Control Point (ACP) barrier system design, project integration, programming and testing for hydraulic and electrical control systems and their operators for multiple military bases under the Army Corp of Engineers standards. Bases: Fort Buchanan, Fort Eustis, Fort Jackson, Fort McCoy, Fort Meade, Fort Polk, Fort Detrick, and the Pentagon. Also performed international projects in Singapore and Saudia Arabia. Other notable projects: Center for Disease Control front entrance and west gate, Iron Mountain data center, White Sox stadium and King County airport.
- Designed a hybrid electrical and hydraulic drop arm trailer barrier system that could be deployed where needed and ran off of rechargeable 12V batteries or 120V power.
- Programmed remotely coordinating with technicians in the field during the pandemic
- Designed and programmed controls for use with other competitor barriers.
- Negotiated with our largest vendor Automation Direct to receive a 10% cost reduction.

Three Phase LLC, CAD drafter 08/2016 - 04/2017

- Performed electrical control panel design and troubleshooting.
- Built out a control panel fabrication shop.
- During a drawing review after going through mapping an entire data center controls system, I found a missing underground conduit, before the foundation was poured, that was supposed to go across the future side of a data center in the foundation that without it would have left an entire side of the current data center disconnected from the main controls.

Arm Automation Inc., Automation technician 02/2016 - 08/2016

- Assembled and shipment of turnkey robot systems.
- Found a 150 kg payload robotic arm for sale that the company purchased for testing and projects.
- Organized and developed a process for making sure the right parts were in place for the builds using specialized carts for projects, and designating parts for projects instead of having just a supply on hand.
- Helped build, design, ship, and integrate a high-density sorter robotic system for Alcon Dailies Contacts.

Good & Free Gluten Free Bakery, Production Manager 5/2015-12/2015

- Developed a manufacturing line processes for Simple Crackers, gluten free cupcakes, fruit snacks and achieved proper level of thruputs by eliminating bottlenecks in the ovens and manufacturing lines.

Texas State University San Marcos, TX, Research Associate 12/2011-9/2014

- Applied knowledge of Chemical Vapor Deposition, Plasma Etching, Electron Beam Evaporation, Photolithography, Spin Coating, Corrosives/Acids, SEM – Scanning Electron Microscopy, AFM – Atomic Force Microscopy, Raman spectroscopy.
- Studied material science research in an attempt to advance renewable energy technology. At the time graphene was a novel material, attempted to use it as a first transparent conductor on an organic solar cell.
- Coordinated with a professor at Texas State who was at the forefront of graphene research and a professor at Chalmers university in Sweden who was working on organic solar cells. Attempted to use graphene as a first transparent conductor on an organic photovoltaic cell. Project was unsuccessful but it was the start of my career in research.
- Developed a method for transferring large area graphene sections using a draining apparatus with a reducing cross section.
- Successful in getting a 50-nano meter gap in graphene by applying voltages to a reduced cross section of graphene which was verified by both SEM and AFM.
- Identified the concept to use a brittle template for nano mesh lithography which I later patented.
- Identified the concept to use a brittle material to mechanically produce a nanometer sized gap in graphene which I later patented.

Volunteering:

Youth mentor for the Burke Center for Youth, Knights of Columbus member and meeting recorder, Youth group leader volunteer, and I sing in the choir.