Grey Liedtke

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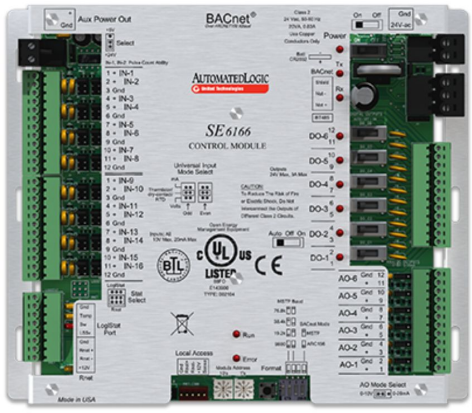
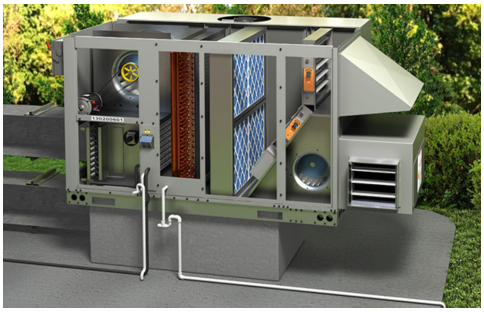




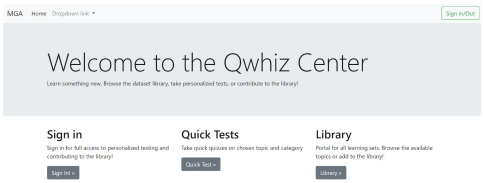
Automated Solutions Group
Programming Engineer
Duration: August 2019 – Current

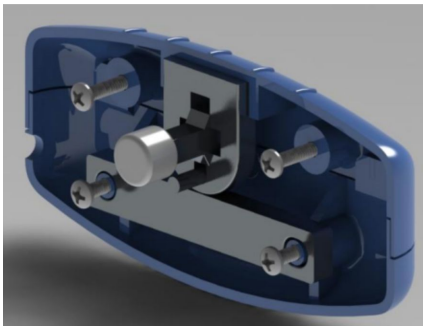
Automated Solutions Group is a building automation company that provides HVAC controls for buildings in Silicon Valley. The intention of these controls are to provide the customer with a manageable BMS to efficiently control and operate large tech buildings. ASG is a licensed distributor for Automated Logic Controls, an industry leading building control software.

As a programming engineer, I am responsible for:

- Programming logic for effectively operating HVAC equipment
- Building a network system for servers, controllers, and customer equipment to communicate through communication protocols
- Creating intuitive UI environments and training customers on using the BMS
- Performing on site checkout, testing, troubleshooting and commissioning of critical building equipment
- Developing scripts to automate various job processes using (batch files, excel macros, autohotkey, groovy)
- Collaborating with workers from all industries to create functional and efficient building control systems.

I thoroughly enjoy this job because I am able to automate and streamline systems to significantly reduce energy loads. I am passionate about minimizing our impact on this earth, and reducing the load from commercial buildings is a critical step. In my role as a programming engineer, I am able to make a large impact on many high profile Silicon Valley projects. I have developed experience building control systems and am eager to keep innovating energy efficiency through programming and automation systems.





Personal and School Projects

3d Printing

I assembled a 3D printer to better understand how they work and experiment with rapid prototyping. Additive manufacturing will be a huge part of the future and I wanted to better my skills with designing parts and seeing my ideas come to fruition. I am constantly learning more about design with every print as I gain experience with tolerancing, printing processes, and material selection.

Web Development

I began with the mission of learning Thai and it has led me down a rabbit hole of developing a web learning platform. I began with a python gui and have expanded to designing the architecture, front-end, and back-end of a website. This has sparked my interest in computer science and I'm excited to create more!

School

- Class: **Senior Project**. Designed, prototyped, and created functioning hand dynamometer
- Class: **Single-Track Vehicles** Designed, built, and analyzed dynamics of functioning swing bike
- Class: **Microcontrollers** Built self-balancing robot working with sensors, motors, mechanical frames, and Arduino software
- Class: **Intelligent Vehicles** Learned about autonomous driving and integrating sensor data, software, and mechanics to analyze vehicles.

Woodworking

Woodworking inspires me because I'm involved in the entire process from seeing ideas to large products. The act of building introduces me to challenges I wouldn't have thought of and think critically about designs. Projects include: room, kinetic sculptures, swinging chair, furniture

Arduino

I began working with arduino with the curiosity of understanding how mechanical, electrical and software integrate to create function systems.
Some of my projects include: self balancing car, programmable leds, motorized window economizer, etc...

Test Resources

Mechanical Engineering Intern
Duration: June – September 2018

Test Resources is a mechanical testing company that creates machines customers can use to test the strengths and lifetimes of their products. I worked closely on the static loading machines and was also exposed to torsional, dynamic and fatigue testing machines.

My responsibilities included:

- Hands on experience assembling, troubleshooting, and testing electro-mechanical machines to ensure high quality products
- Calibrated sensors using mechanical fixtures improve product accuracy and quality
- Broad experience integrating software, electrical and mechanical components to provide functional products

This hands-on internship allowed me to gain experience in the many facets of mechanical testing. Working closely with motors, loads cells, bearings, and ball screws made me realize the power of design in a context that wasn't through a textbook. I'm interested in mechanical testing because it helps us better understand our products, and is an important aspect in every industry.

Powder Process Solutions

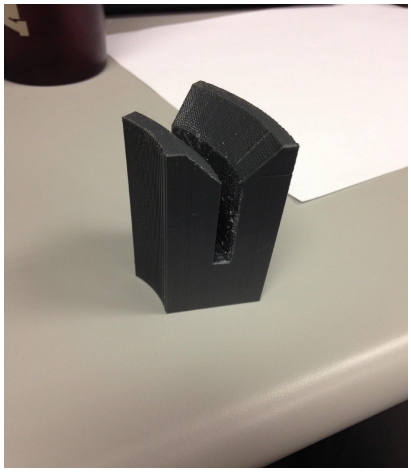
Project Management Intern
Duration: June – September 2017

Powder Process Solutions provides custom solutions for transporting and handling bulk powder in the dairy, pharmaceutical, and nutrition industries. I was responsible for assisting project managers and earned the opportunity to manage a project myself.

Some of my tasks included:

- Testing and implementing a blower system into a pneumatic line at dairy factory
- Ordering and inspecting fabricated parts to ensure quality products
- Communicating with vendors and clients to choose parts specific to project needs

I enjoyed being able to wear many different hats throughout this internship to develop my skills in a variety of areas, whether that was the design meetings, warehouse, or with clients and vendors. Gaining hands on experience in the engineering design process of these complex powder systems was very rewarding and informative. I enjoyed learning about this niche industry and realized how important powder processing is in keeping humans healthy.



Medtronic

Manufacturing Engineering Intern

Duration: June – September 2016

Medtronic Care Management specializes in in-home monitoring systems, manufactured at this location. These devices allow nurses to check on patients without them ever leaving their house. I am very interested in working in the medical industry because of the opportunity to directly improve patient lives.

Some of my projects included:

- Analyzing a large-scale freezer to maximize cooling
- Redesigning a device to not overheat on factory floor
- Designing and 3D printing prototypes to final fixtures
- Collaborated with teams to integrate ideas to the manufacturing floor

The medical industry was very rewarding knowing my work would subsequently improve the lives of others. I experienced the design process firsthand as my ideas were continually improved until they were implemented in the manufacturing room. This experience sparked my passion for manufacturing and seeing ideas physically come to life.