588 D St
SLC, UT 84103

May 27, 2020

Human Resources & Admin
SpaceX
Hawthorne CA, United States

Dear Human Resources & Admin:

I am writing in response to your Electrical Design Engineer position posting on the SpaceX website. Would you please consider me for the position Electrical Design Engineer? I believe that my work experience at PacifiCorp and Moog Inc and my academic training at the University of Utah, would quality me for the position.

I currently work at PacifiCorp as a meter engineer. I am responsible for designing the high-end metering and metering equipment at plants and substations. This position at PacifiCorp has given me hands on experience with designing power equipment and delivering and installing that power equipment in the field. When I deliver products to the field, it is required of me to provide engineering support when installing the equipment. I use multiple metering software to program meters, such as ION set up, and Maxcom. Because metering involves a lot of data and documentation, I am very proficient with Excel. A crucial part to metering is the communication aspect of it, if that be communicating to the meter or delivering the meter's data to the back office or SCADA. This has given me a lot of experience with multiple communication protocols, such as DNP/Modbus to an RTU, TCPIP, modem, RS232/485, and cellphones. I also design the metering and order the metering transformers for customers increasing their load. I also design the metering for new substations or solar generators being built. All of the projects that I do for PacifiCorp require great communication skills and writing ability.

I worked at Moog Inc as an engineering co-op in the EMC/EMI testing division. I built drivers for enabling switches, and made LISN's to allow testing to have consistent transmission parameters. I tested various systems such actuators and control units. These units were tested for electromagnetic susceptibility and radiated emissions using LabView. Testing equipment required me to be proficient with electrical test equipment.

My education at the University of Utah has given me a strong background in analog and digital electronics design. I have concentrated mostly on analog design, but have a lot of experience in digital design and programming. For my senior project, I led the analog portion of designing an industrial, wireless benzene sensor. This required me to design the potentiostat sensor, create a PCB with an ADC, DAC, GPS, and thermostat in EAGLE, and have a formal presentation in front of my peers.

I have a strong engineering foundation and completed several hands on engineering projects.

- Designed a fourth-order low-pass continuous-time filter with operational amplifiers to remove high frequency information from music using MATLAB.
- Fabricated a voltage regulator that was optimized to competitively compete with other students.
- Built a microphone to speaker amplifier. This project was simulated using PSpice and built and tested in the lab. The circuit required the use of a power supply, function generator, and oscilloscope.
- Created an electrical engineering calculator in C++.
- Programmed a digital lock using an Arduino board with Verilog.
- Completed the design of a low dropout regulator along with a formal paper.

The enclosed résumé provides an overview of my experience and education. Could I please schedule a meeting with you at your convenience to discuss my qualification in more details for this position? Please leave me a message anytime at (801) 856-1842 or e-mail me at chrisbrch@gmail.com

Sincerely,

Chris Burch

Enclosure