

Brady Hartog

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9740 S Sitzmark Dr
Sandy, UT 84092

Education

University of Utah

Computer Engineering B.S.
Technical GPA 3.83

Graduation Dec 2022

Projects

Hartog Musical Synthesizer

Conceived the industrial design of an innovative musical synthesizer, including its front panel interface, which features oscillators, filters, envelopes and modulation controls.

Electromyogram Instrumentation

Developed a circuit for capturing electromyograms using medical-grade electrodes and a robust, multi-stage amplifier system.

Skills and Qualifications

- Hardware Design | PCB Design | Data Visualization | Object-Oriented Programming | Presentation Design
- Python | Java | C++ | MATLAB | Verilog | HTML/CSS
- Altium Designer | Quartus Prime | SPICE | Adobe Illustrator | Adobe Photoshop | Arduino

Professional Experience

Varex Imaging Corporation

Hardware Engineering Intern

Salt Lake City, UT

May–August 2019

- Designed switching regulators for next-generation fluoroscopic imaging panels by optimizing circuit board area against efficiency and noise. The designs allowed for 46% smaller board area compared to previous designs.
- Performed verification procedures for fluoroscopic imaging panels including: PCB rework, mechanical assembly, programming, and X-ray image quality testing. The testing helped advance several panels in the product pipeline.

T.D. Williamson, Inc.

Electrical Engineering Intern

Salt Lake City, UT

June–August 2017 and 2018

- Investigated and developed data visualization procedures for images of pipelines from triaxial Hall effect sensors. The project helped discover a new method of inspecting pit-like defects in pipelines.
- Developed a model for the radial alignment of pipeline inspection data using synthesized accelerometer readings. The model yielded a potential alignment accuracy of 1° and better, improved over 7° in the previous model.

Presentations

DigiForge Conference 2019

Led high school students in an interactive tutorial on image processing and data visualization with Python.

March 2019

DigiForge Conference 2017

Led high school students in an interactive tutorial on vector illustration using Adobe Illustrator.

March 2017

Volunteer Experience

South Mountain Community Church

- Plays piano and synthesizer during Sunday worship services and at special events.

Scholarships and Awards

- University of Utah Flagship Scholarship
- College of Engineering Robert G. & Mary Jane Engman Endowed Scholarship
- College of Engineering Clyde Christensen Endowed Scholarship
- Hillcrest High School Sterling Scholar in Computer Technology