United States Citizen

Brendan Haines

Last Updated on
20th October 2017

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EDUCATION

UNIVERSITY OF COLORADO
BS in Electrical and Computer Engineering
Expected May 2019 | Boulder, CO
Dean's List (All Semesters)
Cum. GPA: 3.93

FAIRVIEW HIGH SCHOOL
HS + IB Diploma
Grad. May 2016 | Boulder, CO
Cum. GPA: 4.52 / 4.0

SKILLS

ELECTRONICS
Circuit design
Design, breadboarding, debug, and analysis.
Digital design using Verilog HDL.
PCB design with Eagle.
Soldering
Population of PCB including surface mount soldering ranging from 0402 to 88-LGA.

PROGRAMMING
Proficient with:
C/C++ • Bash • Java • Arduino
Mathematica • LaTeX
Familiar with:
Python • Android • JavaScript • Matlab
Basic web development:
html5 • Rails • Bootstrap • Magento

MECHANICAL DESIGN
Design with SolidWorks
Variety of manufacture experience
3D printers • laser cutters
Basic Mill and Lathe knowledge.
Hands-on shop work from a young age.

AMATEUR RADIO
General class • KEØHSC

STUDENT PILOT
10 hours logged toward private pilot license.

EXPERIENCE

UNIVERSITY OF COLORADO | Student Assistant
Fall 2017 | Boulder, CO
- Assisting students at completing semester-long engineering projects.
- Evaluating student academic progress.

UNIVERSITY OF COLORADO | Educational Platform Updates + Evaluation
Summer 2017 | Boulder, CO
- Prototyping of a "smart" Razor scooter to be used as a teaching tool in an embedded systems course.
- Aesthetic and structural enclosure design and fabrication.
- Sensor design and testing.

THE BLACK KNIGHTS | Electrical Lead
September 2014 - May 2016 | Boulder, CO
- Fairview High School robotics team.
- Designing and building a robot to compete in FIRST Robotics Competition.
- Teaching circuit basics to new team members.

PROJECTS

ARBITRARY WAVEFORM GENERATOR | Individual
June 2017 - Present
Lacking a proper waveform generator, the goal is to make a useful tool while gaining valuable experience both with embedded systems and analog front-end design. The current prototype uses a direct digital synthesizer controlled by a Texas Instruments micro-controller.

HANDMADE KNIFE | Individual
July - August 2017
Making this knife began with a desire to learn more extensive metalworking accompanied by an interest in knives. In practice, this involved significant grinding and filing of a raw steel bar followed by heat treatment at 1500°F and finishing.

NETWORKED KILN CONTROLLER | Individual
November 2016 - August 2017
Intended to fix a kiln damaged in a recent flood, the final product can connect to a local WiFi network and allow remote control of temperature.

CELL PHONE FOR THE ELDERLY | Freshman Year Project
September – December 2016
To address the struggles many people, especially the elderly, face with new and miniaturized technology, this prototype cell phone maintains the user interface of older land-lines while gaining portability.

AWARDS

2016 - 2017	CU Boulder	Dean's List
2016 - 2017	CU Boulder	Esteemed Scholar
2016 - 2017	CU Boulder	Engineering Honors Program
2016	International	International Baccalaureate Diploma
2016	National	National Merit Scholarship Finalist
2016	CU Boulder	Physics Dept. Albert A. Bartlett Award