Bradley L. Davis

Electrical Engineering Student

me@bradleydavis.tech 206-484-7570 bradleydavis.tech github.com/WattsUp

Relevant Experience

Engineer @ Schweitzer Engineering Laboratories

Internship // May 2018 - Present // Pullman, WA

- Led experimental project of high surge withstanding Gigabit Ethernet interface including presenting findings to management to discuss commercial adoption.
- Aid development for an Intel based rugged industrial computer with a projected MTBF of over 300 years.
- Perform UL, IEC, & IEEE regulatory type testing including surge, EFTB, radiated immunity, thermal cycling, & dielectric strength.
- Developed a Gigabit Ethernet reliability and throughput testing software.
- Fabricated a testing tool that identifies manufacturing defects saving money and life.
- Utilize oscilloscopes, digital multimeters, and Ethernet sniffers to functionally test hardware.
- Qualify alternate parts that meet or exceed electrical and regulatory equivalence.
- Participate in a team of 4 with an agile methodology.

CTO @ Cougs in Space - *WSU Satellite Club*

Club // August 2017 - Present // Pullman, WA

- Advise and manage all projects related to the satellite's development.
- Create circuit design, layout traces, and functionally test 8 unique PCBs with predominantly surface-mount technology.
- Construct a Low Earth Orbit communication system with software defined radios.
- Write software for embedded microcontrollers.
- Prototyped mechanical solutions predominantly for communication systems.

Lead Technical Counselor @ Tahoma Robotics Camp

June 2014 - June 2018 // Maple Valley, WA

- Formulated unique games for each year by:
  - Writing comprehensive competition and game rules.
  - Animating an animation explaining the game.
  - Programming real-time scoring software.
  - Executing a competition live-stream with professional audio/visual equipment.
- Aided campers with designing, building, wiring, and programming of VEX robots.

Design Lead @ Tahoma Robotics Club - *FRC 2046*

Club // September 2012 - May 2017 // Maple Valley, WA

- Designed and created CAD for 90% of the robots that won Autodesk Robot CAD Competition at PNW District Championship in 2015, 2016, and 2017.
- Led design team to win General Motors Industrial Design Award in 2015, 2016, and 2017.
- Taught advanced Autodesk Inventor classes at a local robotics workshop, 15 FRC teams in attendance.
- Organized 40 designers, fabricators, assemblers, electricians, and programmers to consistently create a successful robot: placing 5th out of 5,000 teams worldwide in 2017.

Skills & Libraries

Excellent

Autodesk EAGLE	Microsoft Excel
Digital Design	Microsoft Word
Autodesk Inventor	C/C++
3D Design	Java
Autodesk 3ds Max	GIMP

Skilled

Git	Python
Analog Design	Regex
LTSpice	Sheet Metal Design
MATLAB	CNC Machines
HTML/CSS/JS	Graphic Design

Familiar

RF Design	OpenGL
Verilog	WIN32
CMake	X11/XCB
JIRA	Simulink

Education

Washington State University

Fall 2017 - Expected Fall 2021

Voiland College of Engineering and Architecture, Honors College

Bachelor of Science in Electrical Engineering

Minors in Math and Physics

GPA: 3.81

President's Honor Roll Fall 2017 - Fall 2020

WSU Capstone Project - *Collab*

Data acquisition system with pipelined FFT designed in Simulink for an FPGA.

Built for PNNL's Project 8 to determine the mass of a neutrino using a cyclotron and phased antenna array.

Personal Projects

bradleydavis.tech

Spring 2019

First published website serving my resume, portfolio, and life experiences.

Built with HTML, CSS, and JS

C++ Project Template

Spring 2020

Template git repository for medium to large projects utilizing CMake.

yaul: C++ UI Library

Winter 2020 - *Work in Progress*

Cross-platform graphical user interface library with minimal dependencies and runtime resources