

Brent Ford

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409 Thomas Circle Seymour, TN 37865

EDUCATION

University of Tennessee, Knoxville

Bachelor of Science in Electrical Engineering and Physics

GPA: 3.68

May 2020

Walter's State Community College

Associate of Science in Mechanical Engineering

GPA: 3.58

Dec. 2017

EXPERIENCE

University of Tennessee, Knoxville

Undergraduate Physics Tutor

Jan. 2018–May 2020

Used problem solving techniques and organization to help students.

Centralized information to educated students in physics fundamentals.

Oak Ridge National Laboratory

Intern, Accelerator Physics Division

Jun. 2019–Aug. 2019

Surpassed expectations developing computational models.

Advanced the modeling capabilities for the PyOrbit code base.

Intern, Energy & Transportation Science Division

Jun. 2018–Aug. 2018

Audited industrial process heating methods for potential improvements.

Developed cooperation and teamwork skills through large team projects.

Walter's State Community College

General Education Tutor

Aug. 2017–Dec. 2017

Authored detailed resources for a wide range of courses.

Demonstrated patience, attention to detail, and elegant communication.

SKILLS

Programming

C++ ◊ Python ◊ MatLab ◊ VHDL ◊ RISC-V Assembly ◊ Java ◊ JavaScript ◊ Fortran ◊ Swift

Software

ADS (keysight) ◊ CST ◊ Altium ◊ Spack ◊ LabView ◊ Simulink ◊ QUARC ◊ SPICE ◊ GitHub

Design

RF: Gain Blocks ◊ Oscillators ◊ LNAs ◊ Filters

Antennas: Dipole ◊ Patch ◊ Loop ◊ Phase Array

Amplifiers: Feedback ◊ Wide-band ◊ Audio

Languages

English ◊ Spanish

PROJECTS – Find explanations and results on my website

- PyOrbit Contributions
- QuadTree Implementation
- Wooden Furniture
- Gauntlet OOP Codesample
- Electric Bass Guitar
- RF Oscillator
- PIC Code
- Audio Pre-amp
- A* Maze Solver

VOLUNTEER EXPERIENCE

Centro Hispano - Knoxville, TN

Completed educational activities with children during their parents' classes.

Boys & Girls Club - Seymour, TN

Mentored and tutored children.

INTERESTS

Plasma Research ◊ Accelerator Research ◊ Computational Modeling ◊ RF Design ◊ Materials Research