

## EDUCATION

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<b>University of Tennessee, Knoxville</b> <i>Bachelor of Science in Electrical Engineering and Physics</i>	GPA: 3.68 May 2020
<b>Walter's State Community College</b> <i>Associate of Science in Mechanical Engineering</i>	GPA: 3.58 Dec. 2017

## EXPERIENCE

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<b>University of Tennessee, Knoxville</b> <i>Undergraduate Physics Tutor</i>	Jan. 2018–May 2020
Used problem solving techniques and organization to help students. Centralized information to educated students in physics fundamentals.	
<b>Oak Ridge National Laboratory</b> <i>Intern, Accelerator Physics Division</i>	Jun. 2019–Aug. 2019
Surpassed expectations developing computational models. Advanced the modeling capabilities for the PyOrbit code base.	
<i>Intern, Energy &amp; Transportation Science Division</i>	Jun. 2018–Aug. 2018
Audited industrial process heating methods for potential improvements. Developed cooperation and teamwork skills through large team projects.	
<b>Walter's State Community College</b> <i>General Education Tutor</i>	Aug. 2017–Dec. 2017
Authored detailed resources for a wide range of courses. Demonstrated patience, attention to detail, and elegant communication.	

## SKILLS

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### 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

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

## VOLUNTEER EXPERIENCE

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### Centro Hispano - Knoxville, TN

Completed educational activities with children during their parents' classes.

### Boys & Girls Club - Seymour, TN

Mentored and tutored children.

## INTERESTS

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