

Nolan Groves

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College senior with lab work, research, and teaching experience; looking to specialize in autonomous systems. Extensive experience in a ultra-high vacuum research lab. Broad exposure to physics, applied electronics, various programming languages, and advanced math.

Education

2017 – **Senior in the Physics Program with CS minor**, *Texas State University*, San Marcos, TX, 3.97.

- Current
- Applied Electronics
 - Electromagnetic Theory I & II
 - Calculus III
 - Quantum Mechanics
 - Statistical Physics
 - Differential Equations
 - Discrete Math
 - Assembly Language
 - Data Structures & Algorithms

2012 – 2016 **IB Diploma**, *Westwood High School*, Austin, TX, 4.0.

Experience

May 2019 – **Lab Tech**, *Texas State University*, San Marcos, TX.

Current Worked under Dr. Mark Wistey in Molecular Beam Epitaxy (MBE) research. Resolved various technical/mechanical issues and assisted with general ultra-high vacuum lab operation.

- Modified code to allow digital reading of unsupported sensors through Molly control software, as well as debugging and implementing various other hardware control interfaces.
- Helped design and build water chiller units with digital controls.
- Oversaw transfer of control systems to new hardware and operating systems.
- Performed general maintenance work and operation on ultra-clean systems, ultra-high vacuum systems, high voltage systems, arsenic contaminated systems, and others.

Aug 2019 – **Learning Assistant/Lab Instructor**, *Texas State University*, San Marcos, TX.

Current Worked with various teachers to teach the intro Electricity and Magnetism course and the Advanced Lab course

- Taught the fundamentals of electronic and mechanical systems using independent projects including a high-vacuum system and an automated weather station
- Learned the pedagogical models backing the Learning Assistant program and modern learning in general
- Staffed the physics help center to assist with a variety of problems from various classes.

Nov 2017 – **Contractor**, *Salsa Labs*, Austin, TX.

Current Perform data normalization, transformation, and cleanup on client data for import into a CRM database

Computer Skills

- Python
- Java
- Linux
- C++
- Javascript
- Networking

Fabrication Skills

- Welding
- Water Jet
- Wood Shop
- Metal Lathe
- CNC Mill
- Laser Cutter

General Skills

- Problem Solver
- Fast Learner
- Levelheaded Personality
- Strong Mediator
- Excellent Teacher/Explainer
- Creative Thinker