

Morgan A. Priolo

Personal Information

Date of Birth: 08/25/1984
Place of Birth: Danbury, CT
Citizenship: United States of America
Sex: Male

Education

Aug. 2000-May 2001 University of North Texas Denton, TX
▪ Texas Academy of Mathematics and Science at UNT
Jan. 2002-May 2002 South Texas Community College McAllen, TX
▪ Concurrent enrollment through Sharyland High School
Aug. 2002-May 2006 University of Texas-Pan American Edinburg, TX
B.S. in Physics and Mathematics
▪ Upper Division Physics GPA: 3.79
▪ Cumulative GPA: 3.23
Aug. 2006-July 2008 Texas A&M University College Station, TX
Applied Physics Ph.D. Program
July 2008- Texas A&M University College Station, TX
Materials Science and Engineering Ph.D. Program

Research Experience

May 2005-May 2006 University of Texas-Pan American Edinburg, TX
Physics
▪ Three semesters of Material Science research under J.S. Qualls, Ph. D
▪ One semester of Optics research under Y. Lin, Ph. D
Aug. 2006-July 2008 Texas A&M University College Station, TX
Applied Physics
▪ Two years of Applied Physics research in the Scanning Tunneling
Microscopy (STM) Lab under M.B. Weimer, Ph. D.
July 2008- Texas A&M University College Station, TX
Materials Science and Engineering
▪ Polymer Nano Composites (PNC) Lab – J.C. Grunlan, Ph. D.

Summary of
Qualifications,
Skills &
Experience

May 2005–May 2006 University of Texas-Pan American Edinburg, TX
Materials Science Lab

- Torque Magnetometer production
- Low temperature probe and break-out box wiring
- Liquid Nitrogen handling
- Lab capable of materials characterization from 1.5 to 400 Kelvin in magnetic fields up to 17 Tesla

Jan. 2006–May 2006 University of Texas-Pan American Edinburg, TX
Optics

- Laser beam reflection and manipulation hardware assembly
- Optics course laboratory set-up and maintenance

Teaching Assistant

- University Physics – Mechanics

Aug. 2006–July 2008 Texas A&M University College Station, TX
STM Lab

- Extensive use of an ESI Model 44 Laser Trimming System
- Semiconductor wafer handling and preparation
- Ultra High Vacuum cleaning by sonication using chemicals such as Ethyl-Alcohol, Acetone, Trichloroethane, and Alconox
- STM tip fabrication by electrochemical etching of 80:20 Platinum/Iridium wire
- Photomicrography using Differential Interference Contrast Microscopy, a technique that utilizes a Nomarski prism to create enhanced contrast and intensify surface features
- Adobe Photoshop
- Deionized water testing

Scientific Instrument Making

- Instruments made using a band saw, a belt sander, a rotary grinder, a lathe, and a mill.
- Heat treatment of tool steel
- Soldering using Harris Safety-Silv 56

Teaching Assistant

- College Physics – Mechanics and Electricity & Magnetism
- Scientific Instrument Making

July 2008– Texas A&M University College Station, TX
PNC Lab

- Layer-by-Layer Assembly

Awards and Support Received	Dean's List Second Honors, Fall 2002 & Spring 2004
	STARS Scholarship Award 2005-2006 & 2006-2007
	Department of Physics Teaching Assistantship, Aug. 2006 – July 2008
Community Activities	Valley Fellowship church – Worship Team drummer and weekly deposits manager
	B.L. Gray Jr. High School-UIL events judge and timekeeper
	Tutoring junior high to college students; Physics, Math, and Percussion
	Brazos Fellowship church – Worship Team drummer, weekly deposits manager, and College Leadership (Youth Leader)
Summer Positions	Summer 2002 & 2003 Sharyland I.S.D. Mission, TX
	Instructional Aide
	<ul style="list-style-type: none">Assist individual students during class time, coordinate with classroom teacher, prepare classroom material, develop my own instructional strategies to assist highly at-risk students, one-on-one tutoring, record keeping, grading, and general classroom supervision
	Summer 2006 Texas A&M University College Station, TX
	Lab Technician
	<ul style="list-style-type: none">Optimize both quality and reproducibility of the fabrication and storage of STM tips, extensive experience on an ESI Laser Trimming System and multi-stage sonication techniques
Presentations	“Human Cloning” – Created for the upper division Physics course, “Introduction to Biophysics” under the instruction of Assistant Professor N. Dimakis, Ph. D
	“ATP” - Created for the upper division Physics course, “Introduction to Biophysics” under the instruction of Assistant Professor N. Dimakis, Ph. D
	“XAFS” - Created for the upper division Physics course, “Introduction to Biophysics” under the instruction of Assistant Professor N. Dimakis, Ph. D