

# Thomas R. Shafer

## Curriculum Vitae

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- CONTACT INFORMATION      Department of Physics and Astronomy  
The University of North Carolina at Chapel Hill  
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120 E. Cameron Avenue      **E:** [tshafer@physics.unc.edu](mailto:tshafer@physics.unc.edu)  
Chapel Hill, NC 27599 USA      **W:** Tom Shafer @ UNC Physics
- RESEARCH INTERESTS      Theoretical and fundamental physics, general relativity, particle physics, nuclear physics
- EDUCATION      **The University of North Carolina at Chapel Hill**  
Chapel Hill, North Carolina USA  
  
Ph.D., [Physics](#), *in progress*  
  
**The University of North Carolina at Wilmington**  
Wilmington, North Carolina USA  
  
B.S., [Physics](#), May 2009, GPA: 4.0 (3.99/4.0 overall)  
  - *Summa cum Laude*, University Honors with Honors in Physics
  - Thesis Topic: Collapse and Revival in the Jaynes-Cummings-Paul Model
  - Advisor: [Professor Moorad Alexanian](#)  
B.A., [Mathematics](#), May 2009, GPA: 4.0 (3.99/4.0 overall)  
  - *Summa cum Laude*, University Honors
- SELECTED AWARDS      **The University of North Carolina at Chapel Hill**  
  - Graduate School Merit Assistantship, 2009  
**The University of North Carolina at Wilmington**  
  - Walter Schmidt Award for Excellence in Physics, 2009
  - English Award for Outstanding Scholarship in Mathematics, 2009
  - Hernandez Award for Outstanding Achievement in Physics, 2008
  - Toney Mathematics Faculty Award for Academic Excellence, 2008
  - Physics Departmental Scholarship, 2007  
  - Honors Scholar, 2005–2009
  - Honors Merit Scholarship, 2005–2009
  - 7x Chancellor’s Achievement Award, 2005–2009
  - 8x Dean’s List, 2005–2009  
  - Member, Pi Mu Epsilon, 2009
  - Member, Sigma Pi Sigma, 2007
  - Member, Phi Eta Sigma National Honor Society, 2006

ACADEMIC  
EXPERIENCE

**The University of North Carolina at Chapel Hill,**  
Chapel Hill, North Carolina USA

*Graduate Student*

**August 2009 to present**

- [UNC Graduate School Merit Assistantship](#) (2009)  
Competitive first-year fellowship and teaching assistantship.
- Fall 2009 Coursework Results:  
High Pass in PHYS 711 (Electromagnetic Theory 1)  
High Pass in PHYS 721 (Quantum Mechanics 1)  
Pass in PHYS 701 (Mechanics)

**The University of North Carolina at Wilmington,**  
Wilmington, North Carolina USA

*Undergraduate Student*

**August 2005 to May 2009**

- Honors Merit Scholarship Recipient (2005–2009)
- 7x Chancellor's Achievement Award Recipient (2005–2009)  
Awarded for no course grade lower than A- on a semesterly basis  
(minimum 15 hours).

PROFESSIONAL  
EXPERIENCE

**Self-Employed,** Wilmington, North Carolina USA

*Professional Studio & Live Musician*

**2004 to present**

- Write, arrange, and record music for a variety of artists around the United States.
- Perform regularly for audiences in excess of 1,000 in several venues. In 2008 alone, performed 104 dates plus rehearsals and writing sessions.

*Freelance Internet Developer & Designer*

**2002 to 2007**

- Designed and developed complete and individual internet solutions individually. Provided services for both individuals and businesses ranging from website maintenance to complete redesign and re-structuring.

**Port City Community Church,** Wilmington, North Carolina USA

*Internet Developer & Designer*

**2004 to 2007**

- Participated in a complete overhaul of Port City Community Church's online presence in 2004.
- Initially responsible for developing and completely re-writing the core architecture powering their websites, but later transitioned into maintaining and expanding a network of 5 or 6 interconnected sites.

**Development Frontiers,** Wilmington, North Carolina USA

*Internet Application Programmer*

**2002 to 2005**

- Participated in the development of internet applications for a variety of clients. Responsible for developing back-end code for the basic structure and functionality of applications.

TECHNICAL  
SKILLS

Extensive internet service programming experience which is easily translatable into application programming

Mathematics Software: MAPLE and SAS experience; proficiency with plotting and data analysis tools such as KALEIDAGRAPH

Programming: PHP, ASP, SQL, JavaScript, CSS, HTML, some UNIX shell scripting, and others

Applications: T<sub>E</sub>X, L<sup>A</sup>T<sub>E</sub>X, B<sub>I</sub>B<sub>T</sub>E<sub>X</sub>, Microsoft Office, Apple iWork, and other common productivity packages for Windows and OS X

Operating Systems: Microsoft Windows XP/2000, Apple OS X, and some Linux & other Unix variants

OTHER SKILLS  
& EXPERIENCE

Extensive work-related travel across the United States

International travel to destinations including Belarus, China, Mongolia, Mexico, and Canada