

Curriculum Vitae

Timothy Thornton

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Education

- **University of Chicago**, Chicago, IL.
Ph.D. in Statistics, December 2005. GPA: 3.8/4.0.
Research area: Genetic Association and Complex Traits.
Dissertation: “Statistical Inference for Genetic Analysis in Related Individuals.”
Adviser: Professor Mary Sara McPeck
- **Hampton University**, Hampton, VA.
B.S. magna cum laude in Mathematics, Salutatorian, May 1998. GPA: 4.0/4.1.

Professional Experience

University of California, Berkeley, Department of Statistics, Berkeley, CA.

- *University of California President’s Postdoctoral Fellow*
Working with Professor Terence Speed. Using statistical methods to identify multiple sclerosis susceptibility genes in the Tasmanian population. July 2006-Present
- *Visiting Professor*
Taught Statistics 20: *Introduction to Probability and Statistics*, Summer 2006.
Designed course, gave lectures, wrote exams, supervised graduate student instructors.

University of Chicago, Department of Statistics, Chicago, IL.

- *Lecturer*
Taught Statistics 200: *Introductory Statistics*, Autumn 1999 and Autumn 2000.
Designed courses, gave lectures, wrote exams, supervised teaching assistants.
- *Teaching Assistant*
Assisted instructors in a variety of courses. Wrote problem set solutions, ran recitation sessions, held office hours, graded exams.
 - Statistics 200: *Introductory Statistics*, Autumn 1998, Spring 2005.
 - Statistics 220: *Statistical Methods and Their Applications*, Spring 1999, Autumn 2001.
 - Statistics 244: *Statistical Theory and Methods I*, Spring 2000.
- *Consultant*
Advised researchers from the University of Chicago Department of Anthropology and Argonne National Laboratories on statistical analysis and design of experiments. Projects included:
 - “Relationship Behavior Among Female Bonobos.” 1999-2000.
 - “Analysis of Proteins and Protein Distances in Pairs of Related Organisms.” 2002.

Virginia Polytechnic Institute and State University, Department of Statistics,
Blacksburg, VA.

- *Research Assistant*
Created a new statistical approach to measure hockey's special teams' efficiency with Professor Christine Anderson-Cook, Summer 1997.

Harvard School of Public Health, Department of Biostatistics, Boston, MA.

- *Research Assistant*
Attended the Harvard School of Public Health Biostatistics Summer Research Program directed by Professor Louise Ryan, Summer 1996.

Publications

- Thornton T, and McPeck MS, "Case-Control Association Testing with Related Individuals: A More Powerful Quasi-Likelihood Score Test," In preparation.
- Thornton T, Wu X, and McPeck MS, "A Trend Test for Association in Case-Control Studies with Pedigree Data," In preparation.
- Anderson-Cook CM, and Thornton T, "Response to Letter to the Editor: Shorthanded," *Chance*, Vol. 12, No. 2, pp. 3-5, 1998.
- Anderson-Cook CM, and Thornton T, "Measuring Hockey's Special Teams Efficiency," *Chance*, Vol. 11, No. 4, pp. 26-34, 1998.

Presentations and Talks

- *Association Testing with Incomplete Genealogy*, presentation to the Department of Statistics, University of California, Irvine, January 2007.
- *Case-Control Association Testing with Related Individuals: A More Powerful Quasi-Likelihood Score Test*, presentation to the Department of Statistics, North Carolina State University, April 2006.
- *Case-Control Association Testing with Related Individuals: A More Powerful Quasi-Likelihood Score Test*, presentation to the Mayo Clinic Division of Biostatistics, December 2005.
- *A More Powerful Quasi-Likelihood Score Test for Genetic Association in Case-Control Studies*, presentation to the Department of Preventive Medicine & Epidemiology, Loyola University, September 2005.
- *A Modified Quasi-Likelihood Score Test for Evaluating Candidate Genes in Case-Control Studies*, presentation at the 2005 Joint Statistical Meetings, August 2005.
- *Inference on the Relationships of the Founders in a Large, Complex Pedigree*, presentation to the Department of Statistics, University of Chicago, November 2001.
- *An Investigation of the U and V Tests for the Behrens Fisher Problem*, presentation to the Department of Statistics, University of Chicago, March 2000.

Awards and Honors

- University of California President's Postdoctoral Fellowship. 2006-2007.
- University of Chicago Graduate Fellowship. 1998-2005.
- The David and Lucile Packard Foundation Graduate Fellowship. 1998-2004.
- Office of Naval Research-Historically Black Colleges and Universities (ONR-HBCU) Graduate Fellowship. 1998-2002.
- Graduate Degrees for Minorities in Engineering and Science (GEM) Fellowship, 1998.
- Office of Naval Research Student Enhancement in Mathematics and Science (ONR-SEMS) Undergraduate Scholarship. 1994-1998.

Volunteer and Service Experience

- **Statfest**
Conference encourages underrepresented minority undergraduate students to consider careers in statistics. Moderated the "Graduate Studies in Statistical Sciences" graduate student presentations for the Fall 2005 Statfest Conference at Florida A & M University. .
- **Math Tutor**
Over 150 hours of community service, from 1994-1998, as a member of the Hampton University Honors College and Student Leadership Program. Tutored students in mathematics at local area middle schools and high schools as well as at Sixth Mount Zion Baptist Church in Hampton, Virginia.

Computer Skills

- **Operating Systems:** *Unix, Linux, Windows.*
- **Programming Languages:** *C, C++.*
- **Statistical & Numerical Software:** *R, S-Plus, Stata, Maple.*
- **Typesetting Software:** *LaTeX, Word.*

Professional Memberships

American Statistical Association (ASA).

Institute of Mathematical Statistics (IMS).

American Association for the Advancement of Science (AAAS).

American Society of Human Genetics (ASHG).

References

Professor Mary Sara McPeck

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Professor Dan Nicolae

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Professor Nancy Cox

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Professor Carolyn B. Morgan

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