

# **BRENT HECHT**

## *Curriculum Vitae*

■ Indicates a new addition or update

Northwestern University  
Department of Elec. Eng. and Computer Science  
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Evanston, IL 60208

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### **Education**

Northwestern University  
Evanston, IL  
2008 - Present

**Doctor of Philosophy, Computer Science (IN PROGRESS)**

Faculty Advisor: Dr. Darren Gergle

University of California, Santa  
Barbara  
*Santa Barbara, CA*  
2005 - 2007

**Master of Arts, Geography**

Thesis: *Utilizing Wikipedia as a Spatiotemporal Knowledge Repository*. Faculty Advisors: Dr. Martin Raubal and Dr. Keith Clarke.

Universität Münster  
*Münster, Germany*  
2006 - 2007

**Visiting Scholar**

Worked at the Institute for Geoinformatics to develop collaborative research projects between UC Santa Barbara and Uni. Münster.

Macalester College  
*St. Paul, MN*  
2002 - 2005

**Bachelor of Arts (Honors), Geography**

Thesis: *Mapalester: A Free, Easy to Use and Powerful GIS*. Graduated Magna Cum Laude.

Macalester College  
*St. Paul, MN*  
2002 - 2005

**Bachelor of Arts (Honors), Computer Science**

Thesis: *Mapalester: A Free, Easy to Use and Powerful GIS*. Graduated Magna Cum Laude.

## Areas of Specialization

Information Retrieval  
Web 2.0 Geography  
Natural Language Processing and Computational Linguistics  
Geovisualization  
Location-based Services  
Geospatial Data Mining  
Wikipedia  
Web Knowledge Repositories  
Semantic Relatedness Measures  
Geography and Narrative Theory  
Pattern Recognition

## Publications

Refereed Proceedings and  
Journal Articles

**Hecht, Brent** and Johannes Schöning. 2008. Mapping the Zeitgeist. *GIScience 2008 Abstract Proceedings*.

Schöning, Johannes, **Brent Hecht**, Nicole Starosielski. 2008. Evaluating Automatically Generated Location-Based Stories for Tourists, *CHI 2008 Work-in-Progress*

**Hecht, Brent**, and Martin Raubal. 2008. GeoSR: Geographically explore semantic relations in world knowledge. *11th AGILE International Conference on Geographic Information Science 2008 (AGILE 2008)* Springer Lecture Notes Series on Geo-Information. Springer, Berlin.

Schöning, Johannes, **Brent Hecht**, Martin Raubal, Antonio Krüger, Meri Marsh, and Michael Rohs. 2008. Improving Interaction with Virtual Globes through Spatial Thinking: Helping Users Ask "Why?". *Intelligent User Interfaces 2008 (IUI 2008)*, p. 129-138

**Hecht, Brent**, Nicole Starosielski, and Drew Dara-Abrams. 2007. Generating Educational Tourism Narratives from Wikipedia. *Association for the Advancement of Artificial Intelligence (AAAI) Fall Symposium on Intelligent Narrative Technologies*, p. 37-44.

**Hecht, Brent**, Michael Rohs, Johannes Schöning, and Antonio Krüger. 2007. WikEye - Using Magic Lenses to Explore Georeferenced Wikipedia Content. *PERMID 2007 (in conjunction with the Fifth International Conference on Pervasive Computing)*, p. 6-10.

Schöning, Johannes, **Brent Hecht**, Michael Rohs, and Nicole Starosielski. 2007. WikEar – Automatically Generated Location-Based Audio Stories between Public City Maps. *9th International Conference on Ubiquitous Computing Demo Proceedings*

Rohs, Michael, Johannes Schöning, Antonio Krüger, and **Brent Hecht**. 2007. Towards Realtime Markerless Tracking of Magic Lenses on Paper Maps. *Pervasive 2007 (Late Breaking Results)*, p. 69-72

## Technical Reports and Maps

**Hecht, Brent.** 2007. Wikipedia Volunteered Geographic Information. Volunteered Geographic Information Position Statement. *Workshop on Volunteered Geographic Information*. December 13-14, 2007.

**Hecht, Brent.** 2007. Popularity of Christian Contemporary Music in the United States. In *Understanding Place: GIS and Mapping Across the Curriculum*, eds. Diana Stuart Sinton, and Jennifer J. Lund, 264-265. ESRI Press.

## Grants, Honors, and Awards

**Best Extended Abstract.** GIScience 2008. Conference attendees selected *Mapping the Zeitgeist (Hecht and Schöning 2008)*.

**Royal E. Cabell Endowed University Fellowship.** Northwestern University. 2008 - 2009. One year of full funding. "Available on a competitive basis to the most outstanding students".

**Outstanding Student Paper Award.** Association of American Geographers (AAG) International Geographic Information Fund (IGIF). \$200. February 2008. Received for *Generating Educational Tourism Narratives from Wikipedia (Hecht et al. 2007)*. Award is "In recognition of outstanding student papers in any area of spatial analysis or geographic information science or systems," from the leading organization of geographers in the world.

**Student Travel Grant.** Association of American Geographers (AAG) International Geographic Information Fund (IGIF). \$750.

**Jack Dangermond Travel Fellowship.** UCSB Department of Geography and ESRI. \$2,000. August 2006.

**Integrative Graduate Education and Research Traineeship (IG-ERT) Grant.** University of California, Santa Barbara. \$60,000 plus tuition and fees. 2005 - 2008.

**Regents Fellowship.** University of California, Santa Barbara. \$36,000 plus tuition and fees. 2005 - 2010.

**Robert R. Church Memorial Prize for Student Scholarship in GIS.** National Institute for Technology and Liberal Education. \$500. 2005.

**National Council for Geographic Education Outstanding Senior.** Macalester College. 2005.

**Minnesota GIS/LIS Consortium Scholarship Award.** MN GIS/LIS Consortium. 2004.

**Keck/Bigelow Student/Faculty Summer Research Collaboration Grant.** Macalester College. \$5,410. 2004.

## Invited Presentations

**Hecht, B.**, Starosielski, N. Minotour: Narrative Theory for Wikipedia, *Screening Media*, Los Angeles, CA, October 2007.

Schöning, J., **Hecht, B.** Tracking of Magic Lenses on Paper Maps, *Spatial Technology Gallery*, Association of American Geographers Meeting, San Francisco, April 18, 2007.

**Hecht, B.**, Smith, L. Mapalester: A Free, Easy to Use and Powerful GIS. *Private College Scholars at the Capitol*, St. Paul, MN, February 3, 2005.

**Hecht, B.** The Geography of Christian Contemporary Music, *Teaching with GIS in the Liberal Arts*, Colorado College, Colorado Springs, CO, August 6, 2004.

## Professional Activities

**Workshop Chair.** *First International Workshop on Trends in Pervasive and Ubiquitous Geotechnology and Geoinformation.* In conjunction with GIScience 2008. Park City, Utah. September 2008.

**Program Committee Member.** *First International Workshop on Location and the Web.* In conjunction with the 17th International World Wide Web Conference (WWW2008). Beijing, China. April 2008

**Session Chair.** *Semantic Similarity and Semantic Relatedness in Geography.* Annual Meeting of the Association of American Geographers 2008. Boston, MA. April, 2008.

## Teaching Experience

Santa Barbara City College

**Instructor of Record (Adjunct).** *Introduction to GIS.* Spring Semester 2008.

**Instructor of Record (Adjunct).** *Regional Geography of North America.* Spring Semester 2008.

University of California, Santa Barbara

**Teaching Assistant.** GEOG 115B: *Introduction to Remote Sensing.* Winter 2008.

**Teaching Assistant.** GEOG 176A: *Introduction to Geographic Information Systems.* Fall 2007.

**Lab Author.** Designed two labs for GEOG 176A course. Fall 2007.

**Mentor.** UCSB Research Mentorship Program. Mentored a high-achieving high school student while he assisted the Minotour project and learned research skills. Summer 2007.

**Teaching Assistant.** GEOG 210C: *Geostatistics (Graduate Level).* Spring 2007.

**Teaching Assistant.** GEOG 5: *Introduction to Human Geography.* Spring 2006.

FIREWISE (St. Paul, MN)

Macalester College

**Guest Lecturer.** "The Geography of Christian Rock". GEOG 5: *Introduction to Human Geography*. Fall 2005.

**Instructor.** "Introduction to GIS and GPS". June 2005.

**Guest Lecturer.** "The Geography of Christian Rock". Undergraduate-level GEOG 111: *Human Geography of Global Issues*. Spring 2005.

**Teaching Assistant.** GEOG 378: *Discipline and Methods of Geography*. Spring 2005.

**Teaching Assistant.** GEOG 242: *Regional Geography of the United States and Canada*. Fall 2003 - Fall 2004.

**Teaching Assistant.** GEOG 365: *Advanced GIS*. Spring 2004 - Spring 2005.

**Teaching Assistant.** GEOG 225: *Introduction to GIS*. Fall 2003 - Fall 2004.

## **Professional Service**

University of California, Santa Barbara  
*Spring 2006, Spring 2007*

### **Volunteer Teaching Assistant**

Took unpaid, "moonlighting" teaching assistant positions in Spring 2006 and Spring 2007 to help out an over-extended, under-funded geography department and to improve my teaching skills.

Macalester College  
*June 2005*

### **Geography Department Candidate Selection Committee Committee Member and Student Representative**

Chosen by department chair to serve on committee to select first GIS lab instructor. Met with candidates to evaluate their qualifications and abilities

Macalester College  
*Feb. 2005 - May 2005*

### **Geography Department Newsletter Founder and Editor**

Started the first-ever Macalester Geography Department newsletter. Organized, lead, and trained fellow students to write articles and help with the production of an 8-page average monthly publication.

Macalester College  
*Fall 2004*

### **Geography Department Candidate Selection Committee Committee Member and Student Representative**

Elected by geography students to serve on the Geography Department search committee to select a candidate for a new GIS tenure-track position. Met with candidates to evaluate their qualifications and abilities. Organized student meetings with the candidates and met with students to discuss candidates. Represented student opinion on the committee

## **Newspapers and Other Media**

**Hecht, B.**, Rohs, M., Schöning, J. & Krüger, A. WikEye - Using Magic Lenses to Explore Georeferenced Wikipedia Content. *ARD TV* (2007). (It was featured on an a German equivalent of the “Today Show”)

## **Professional Affiliations**

### **Association of American Geographers**

*Mar. 2004 - present*

### **Association for the Advancement of Artificial Intelligence**

*Sept. 2007 - present*

### **Upsilon Pi Epsilon (Computer Science Honors Society)**

*Inducted Mar. 2004*

## **Relevant Work Experience**

The Mac Weekly  
*Fall 2004*

### **Managing Editor**

Ran day-to-day operations for Macalester College’s newspaper

The Mac Weekly  
*Spring 2003 - Spring 2004*

### **News Editor**

Revitalized the news section and built a large news writing staff. Responsible for content, editing, layout, management

CNET  
*June 2000 - Jan. 2003*  
*(Summer and Winter Holidays)*

### **Intern**

Programmer for audience development and marketing department. Designed automated Google/Overture advertisement bidding software

## **Community Involvement**

**Founder and Editor.** Liberal Country Fan. Mar. 2006 - Jan. 2007. ([www.liberalcountryfan.com](http://www.liberalcountryfan.com)). Wrote and edited articles about the fascinating intersection between country music and politics. Website received up to 5,000 articles daily, but I had to take it down following the 2006 elections, when research required too much of my time.

**Volunteer.** Isla Vista Youth Program, Goleta, CA, Jan - June 2006.

**Volunteer.** Lynwood Elementary School, St. Paul, MN, Jan - May 2003.

## **Technological Toolbox**

### **Languages**

Fluent in C++, Java, C, Objective-C, Visual Basic, MatLab, Scheme, REALbasic, AppleScript, Prolog, SQL, PHP, HTML, XML, C#

### **Platforms and Unique Datasets**

Facebook Platform, Google Web Toolkit (GWT), Wikipedia data dumps, Windows Mobile (Native and Managed), Mac OS X, Microsoft .Net, US Census, KML specification, Shapefile specification

### **Specialized Applications (Non-Trivial)**

Fluent in ArcGIS 9.x, Photoshop CS3, InDesign CS3, Acrobat 8.x, Quark 6.x, ENVI, Imagine, Dreamweaver CS3, GoLive CS3, WordPress, Eclipse

Favorite development environments include Eclipse, XCode, Visual Studio, REALbasic, and I of course have a preferred text editor on every operating system!

### **Language Skills**

**Spanish** (proficient)

**German** (can get by)