

Camillia Smith Barnes

Software Engineer III

Google

csb@alumni.harvard.edu

www.cammie.tech

www.linkedin.com/in/csbphd

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EDUCATION

Harvard University

Philosophiae Doctor (Ph.D.), Mathematics

Artium Magister (A.M.), Mathematics

Cambridge, MA

June 2009

June 2007

University of Cambridge

Certificate of Advanced Study, retroactively equivalent to *Master of Advanced Study* (M.A.St.), Mathematics, with Merit

Cambridge, England

June 2003

Michigan State University

Master of Science (M.S.), Mathematics

Honors *Bachelor of Science* (B.S.), Mathematics, with Highest Distinction, Lyman Briggs School

Honors *Bachelor of Arts* (B.A.), English Literature, with Highest Distinction

Honors *Bachelor of Arts* (B.A.), French Literature, with Highest Distinction

East Lansing, MI

May 2002

May 2002

August 2002

August 2002

SELECTED GENERAL HONORS & HONORS IN MATHEMATICS

** denotes declined awards*

2009–2010, **Project NExT Fellow**, Mathematical Association of America

2009–2011, **Section NExT Fellow**, Maryland–District of Columbia–Virginia Section, Mathematical Association of America

2003, **AT&T Laboratories Fellowship**, AT&T Labs–Research

2002, **National Science Foundation Graduate Research Fellowship**, National Science Foundation

2002 & 2003, **National Defense Science and Engineering Graduate Fellowship***, American Society for Engineering Education

2002, **Winston S. Churchill Foundation Scholarship** for study at Cambridge, Winston Churchill Foundation of the United States

2002, **National Physical Science Consortium Fellowship**, National Physical Science Consortium

2002, **Graduate School of Arts and Sciences Grant**, Harvard University

2002, **Presidents' Fellowship***, Princeton University

2002, **Olga Taussky-Todd Fellowship***, California Institute of Technology

2002, **University Fellowship***, Yale University

2002, **Graduate School Fellowship***, Rutgers University

2002, **Lyman Briggs School Academic Excellence Award**, Michigan State University

2002, **Jennie Creer Stoddard Foundation Housing Scholarship**, Michigan State University

1999 & 2002, **L. C. Plant Math Award**, Michigan State University

2002, **National Finalist, Fulbright Scholarship** for study in the United Kingdom, United States

2001, **Merit Prize, Oral Presentations in the Physical Sciences**, Michigan State University

2001, **Regional Finalist, Marshall Scholarship**, Midwest Region

2001, **State Finalist, Rhodes Scholarship**, Michigan

2000 & 2001, **William Lowell Putnam Mathematics Competition Top 500**, Mathematical Association of America

2000, **Richard E. Phillips Memorial Scholarship**, Michigan State University

2000, **Herbert T. Graham Scholarship**, Michigan State University

1999, **Honorable Mention, Alice T. Schafer Mathematics Prize**, Association of Women in Mathematics

1999, **Phi Beta Kappa Society**, Michigan State University

1999, **Honor Society of Phi Kappa Phi**, Michigan State University

1999, **Golden Key International Honor Society**, Michigan State University

1998 & 1999, **Honorable Mention, Mathematical Contest in Modeling**, Consortium for Mathematics and Its Applications

1997, 1998, & 1999, **College of Natural Science Dean's List**, Michigan State University

1998, **Pi Mu Epsilon National Mathematics Honor Society**, Michigan State University

1997, **Herzog Mathematics Prize**, Michigan State University

1997, **Alumni Distinguished Scholarship**, Michigan State University

1997, **John M. Stalnaker Memorial Scholarship**, National Merit Scholarship Corporation

1997, **Grand Prize Winner, USA Mathematical Talent Search**, Art of Problem Solving Foundation

1997, **Advanced Placement State & National Scholar**, Michigan

SELECTED HONORS IN LANGUAGE & LITERATURE

2010, **Pi Delta Phi, the National French Honor Society**, Sweet Briar College

2002, **Dorothy Carr Memorial Scholarship** for honors thesis in French Literature, Michigan State University

2001, **Hymen and Miriam Stein Endowed Scholarship** for honors thesis in English Literature, Michigan State University

2001, **Outstanding Student in French**, Michigan State University
 2000, **Phi Beta Delta Honor Society for International Scholars**, Michigan State University
 2000, **Coca-Cola Global Fellows International Study Award Scholarship**, Michigan State University
 2000, **Certificat pratique de langue française, premier degré**, avec mention «**bien**», Université de Paris IV–Sorbonne
 1999, **Jeffrey Kathryn Cole International Study Award Scholarship**, Michigan State University
 1999, **Robert G. Marshall Scholarship**, Sweet Briar College Junior Year in France
 1999, **College of Natural Science Study Abroad Scholarship**, Michigan State University
 1996, **Third Prize, North American Open Poetry Competition**, International Library of Poetry

TEACHING & PROFESSIONAL EXPERIENCE

2018–present, Software Engineer III , Google	Cambridge, MA
2015–2018, Associate Professor , Department of Mathematics, University of Science and Arts of Oklahoma	Chickasha, OK
2009–2015, Assistant Professor , Department of Mathematical Sciences, Sweet Briar College	Sweet Briar, VA
2010–2013, Bimonthly Columnist , <i>Girls' Angle Bulletin</i> , http://www.girlsangle.org/page/bulletin.php	Cambridge, MA
2008, Teaching Fellow , Department of Mathematics, Harvard University	Cambridge, MA
2008, Course Assistant , Department of Mathematics, Harvard University Summer School	Cambridge, MA
2008, Proofreader , Lillian Lieber's <i>Einstein Theory of Relativity</i> , Paul Dry Books	Philadelphia, PA
2007–2009, Mentor , Girls' Angle Math Club	Cambridge, MA
2005, Math Editor , McDougal Littell, a division of Houghton Mifflin Company	Boston, MA
2004–2005, Supervisor , Math Question Center, Harvard College	Cambridge, MA
2003, Summer Research Intern , AT&T Shannon Laboratories	Florham Park, NJ
1998–2002, Teaching Assistant , Department of Mathematics, Michigan State University	East Lansing, MI
2001, Teacher , MASCOT Summer Program, Ingham Intermediate School District	Okemos, MI
1999, Summer Research Assistant , Department of Mathematics, University of Minnesota Duluth	Duluth, MN
1998, Summer Research Assistant , Department of Mathematical Sciences, Michigan Technological University	Houghton, MI
1998–2002, Assistant Coach , Michigan All-Star Math Team	Albion, MI & Iowa City, IA
1997–1999, Professorial Assistant , Department of Mathematics, Michigan State University	East Lansing, MI
1997–1998, Laboratory Assistant , Department of Microbiology, Michigan State University	East Lansing, MI

CONFERENCE PRESENTATIONS

“ Shuffles of permutations ” Invited paper, Stanley@70 conference	June 2014 Cambridge, MA
“ Shuffles of permutations ” Invited paper for special session, AMS Eastern Section Meeting 2012	March 2012 Washington, DC
“ 3-Shuffles of permutations ” Joint Mathematics Meetings 2012	January 2012 Boston, MA
“ Enumeration of the distinct shuffles of permutations ” (poster) Algebraic Combinatorixx, BIRS	May 2011 Banff, Alberta, Canada
“ Shuffles of permutations ” Joint Mathematics Meetings 2010	January 2011 New Orleans, LA
“ Shuffles of permutations ” Permutation Patterns 2010	August 2010 Dartmouth, NH
“ Enumeration of the distinct shuffles of permutations ” (poster) Project NExT/Young Mathematicians' Network Poster Session, Joint Mathematics Meetings	January 2010 San Francisco, CA
“ Enumeration of the distinct shuffles of permutations ” Mathematical Association of America MathFest	August 2009 Portland, OR
“ Enumeration of the distinct shuffles of permutations ” (poster) Formal Power Series & Algebraic Combinatorics, RISC	July 2009 Hagenberg, Austria
“ Enumeration of the distinct shuffles of permutations ” Graduate Student Combinatorics Conference, University of Kentucky	March 2009 Lexington, KY
“ Enumeration of the distinct shuffles of permutations ” Joint Mathematics Meetings	January 2009 Washington, DC
“ Enumeration of the distinct shuffles of two permutations of any length ” National Science Foundation ADVANCE Workshop, Rice University	October 2008 Houston, TX

“Optimal Oriented Diameters” Mathematical Association of America MathFest, University of Wisconsin-Madison	August 2001 <i>Madison, WI</i>
“The Optimal Oriented Diameter of the 3 x 5 Torus” University Undergraduate Research and Arts Forum, Michigan State University	April 2001 <i>East Lansing, MI</i>
“The Optimal Oriented Diameter of the 3 x 5 Torus and of Joins of Graphs” Nebraska Conference for Undergraduate Women in Mathematics, University of Nebraska-Lincoln	February 2001 <i>Lincoln, NE</i>
“The Number of Repeated Parts in an Integer Composition” with Nils Barth Thirtieth Southeastern International Conference on Combinatorics, Graph Theory, & Computing, Florida Atlantic University	March 1999 <i>Boca Raton, FL</i>
“The Representation of the Future in Spoken French” Le français d’hier, d’aujourd’hui et de demain: Association for French Language Studies Annual Conference, University of St Andrews	September 2002 <i>St Andrews, Scotland</i>
INVITED COLLOQUIUM & SEMINAR PRESENTATIONS	
“Famous Math Puzzles” Math, Technology, & Science Club, University of Science & Arts of Oklahoma	September 2016 <i>Chickasha, OK</i>
“Who Wants to Be a Mathematician: Women in Math” Festival of Arts & Ideas, University of Science & Arts of Oklahoma	January 2016 <i>Chickasha, OK</i>
“The Evolution of Euler Characteristic” Math Colloquium, Longwood University	April 2013 <i>Farmville, VA</i>
“Shuffles of permutations” Virginia Commonwealth University Discrete Math Seminar	September 2011 <i>Richmond, VA</i>
“Fun with Catalan Numbers” Math Colloquium, Longwood University	February 2011 <i>Farmville, VA</i>
“Fun with Catalan Numbers” Math Colloquium, Mount Saint Mary’s University	October 2010 <i>Emmitsburg, MD</i>
“Fun with Catalan Numbers” Math Colloquium, University of North Carolina Asheville	October 2010 <i>Asheville, NC</i>
“The Evolution of Euler Characteristic” Honors Colloquium, Sweet Briar College	April 2010 <i>Sweet Briar, VA</i>
“Enumeration of the distinct shuffles of permutations” University of Virginia Algebra Seminar	March 2010 <i>Charlottesville, VA</i>
“Enumeration of the distinct shuffles of permutations” Penn State Algebra Seminar	December 2009 <i>State College, PA</i>
“Enumeration of the distinct shuffles of permutations” North Carolina State University Algebra & Combinatorics Seminar	September 2009 <i>Raleigh, NC</i>
“Enumeration of the distinct shuffles of permutations” Brigham Young University Department of Mathematics	March 2009 <i>Provo, UT</i>
“Enumeration of the distinct shuffles of permutations” Wake Forest University Department of Mathematics	February 2009 <i>Winston-Salem, NC</i>
“Enumeration of the distinct shuffles of permutations” MIT Combinatorics Seminar	November 2008 <i>Cambridge, MA</i>
“Bounds for Optimal Single-Transposition Correcting Codes” Mathematics Seminar Series, AT&T Shannon Laboratories	August 2003 <i>Florham Park, NJ</i>

Barnes, Camillia Smith, “Enumeration of the distinct shuffles of permutations”
 FPSAC 2009, Hagenberg, Austria DMTCS proc. AK, 2009, 155A166.
<http://www.dmtcs.org/dmtcs-ojs/index.php/proceedings/article/view/dmAK0113/2667>

MAJOR GRANTS FROM EXTERNAL SOURCES

2010, **Academy for Inquiry-Based Learning Grant**, Educational Advancement Foundation
 2010, *collaborator*, Math Images II, **Course, Curriculum, & Laboratory Improvement Grant**, National Science Foundation
 2008, **Travel Grant**, American Mathematical Society

MAJOR GRANTS FROM HOME INSTITUTIONS

2016, **Gladys Anderson Emerson Research Grant**, University of Science & Arts of Oklahoma
 2014, **Faculty Grant**, Sweet Briar College, for travel to 2014 Stanley@70 conference
 2012, **Faculty Grant**, Sweet Briar College, for travel to 2012 MathFest
 2011, **Faculty Grant**, Sweet Briar College, for travel to 2012 Joint Mathematics Meetings
 2011, **Faculty Grant**, Sweet Briar College, for travel to 2011 Algebraic Combinatorixx
 2010, **Faculty Grant**, Sweet Briar College, for travel to 2011 Joint Mathematics Meetings
 2010, **Science Initiative Start Up Funds Grant**, Sweet Briar College
 2002, **Graduate School of Arts and Sciences Grant**, Harvard University

ACADEMIC SERVICE

2017–present, **Member**, Festival of Arts and Ideas Committee, University of Science & Arts of Oklahoma *Chickasha, OK*
 2017–present, **Member**, Symposium Committee, University of Science & Arts of Oklahoma *Chickasha, OK*
 2017–present, **Member**, Handbook Committee, University of Science & Arts of Oklahoma *Chickasha, OK*
 2017–present, **Member**, Higher Learning Commission Criterion 3 Committee, University of Science & Arts of Oklahoma *Chickasha, OK*
 2017–2018, **Chair**, Mathematics/Statistics Faculty Search Committee, University of Science & Arts of Oklahoma *Chickasha, OK*
 2016–2017, **Representative**, Mathematics Committee, State of Oklahoma Course Equivalency Project *Edmond, OK*
 2016–2017, **Representative**, Annual Math & Engineering Competition, Muskogee Area Educational Consortium *Muskogee, OK*
 2016–2017, **Member**, Mathematics/Statistics Faculty Search Committee, University of Science & Arts of Oklahoma *Chickasha, OK*
 2016–2017, **Member**, Regents Professional Achievement Awards Committee, University of Science & Arts of Oklahoma *Chickasha, OK*
 2015–2016, **Chair**, Regents Professional Achievement Awards Committee, University of Science & Arts of Oklahoma *Chickasha, OK*
 2015, **Attendee**, Oklahoma Concurrent Enrollment Convening, University of Tulsa *Tulsa, OK*
 2014–2015, **Member**, Assessment Committee, Sweet Briar College *Sweet Briar, VA*
 Fall 2013, **Member**, Faculty Grants Committee, Sweet Briar College *Sweet Briar, VA*
 2011–2013, **Member**, Honors Committee, Sweet Briar College *Sweet Briar, VA*
 2010–2012, **Member**, International Studies Advisory Committee, Sweet Briar College *Sweet Briar, VA*
 2010–2011, **Member**, Gender Studies Advisory Committee, Sweet Briar College *Sweet Briar, VA*
 March 2010, 2011, 2012, 2014, & 2015, **Member**, Phi Beta Kappa Nominating Committee, Sweet Briar College *Sweet Briar, VA*
 April 2011, **Judge**, Undergraduate Presentations and Posters, Mathematical Association of America MD–DC–VA Section Meeting *Ashland, VA*
 January 2011, **Session Chair**, Combinatorics II, American Mathematical Society Joint Mathematics Meetings *New Orleans, LA*
 November 2010, **Session Organizer**, “Undergraduate Research: Issues and Challenges”, Section NExT, Mathematical Association of America MD–DC–VA Section Meeting *Fairfax, VA*
 August 2010, **Session Organizer**, “Motivating the Unmotivated: Getting Students to Buy Into Your Course, the Next Course, and the Math Major”, Project NExT, Mathematical Association of America MathFest *Pittsburgh, PA*
 April 2010, **Judge**, Undergraduate Presentations, Mathematical Association of America MD–DC–VA Section Meeting *Petersburg, VA*
 January 2010, **Judge**, Undergraduate Poster Session, American Mathematical Society Joint Mathematics Meetings *San Francisco, CA*
 January 2010, **Session Organizer**, “Designing and Implementing Your Own Upper Level Course”, Project NExT, American Mathematical Society Joint Mathematics Meetings *San Francisco, CA*
 January 2009, **Session Chair**, Combinatorics IV, American Mathematical Society Joint Mathematics Meetings *Washington, DC*
 2008–2009, **Board Member & Department Representative**, Harvard Graduate Women in Science & Engineering (HGWISE), Harvard University *Cambridge, MA*
 August 2008, **Assistant to the Coordinator**, Conference on Geometric Analysis: Present & Future, Harvard University *Cambridge, MA*
 2002–2003, **External Events Officer**, Churchill College Middle Common Room Committee, Cambridge University *Cambridge, England*
 Spring 1999, 2001, & 2002, **Member**, Selection Committee for Honors Contributions Award, Michigan State University *East Lansing, MI*
 2001–2002, **Advisor**, Undergraduate Math Club, Michigan State University *East Lansing, MI*
 2001–2002, **Vice President**, Honors College Student Advisory Committee, Michigan State University *East Lansing, MI*
 1998–1999 & Spring 2001, **Treasurer**, Honors College Student Advisory Committee, Michigan State University *East Lansing, MI*
 2000–2001, **Member**, University Committee on Honors Programs, Michigan State University *East Lansing, MI*