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CAMILLIA SMITH BARNES

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EDUCATION

Harvard University *Cambridge, MA*
- PHD (*Philosophiae Doctor*), Mathematics — June 2009
- AM (*Artium Magister*), Mathematics — June 2007

University of Cambridge *Cambridge, UK*
- MAST (*Master of Advanced Study*), Mathematics, *with **Merit*** — June 2003

Michigan State University *East Lansing, MI*
- MS (*Master of Science*), Mathematics — May 2002
- Honors BS (*Bachelor of Science*), Mathematics, *with **Highest Distinction***, Lyman Briggs School — May 2002
- Honors BA (*Bachelor of Arts*), English, *with **Highest Distinction*** — August 2002
- Honors BA (*Bachelor of Arts*), French, *with **Highest Distinction*** — August 2002

Université de Paris IV–Sorbonne *Paris, France*
- CERTIFICAT PRATIQUE de langue française, premier degré, *avec mention « **bien** »* — April 2000

EMPLOYMENT

Associate Professor, Department of Mathematics — *University of Science & Arts of Oklahoma*, 2015–present
- Taught 40 courses (15 distinct) & ∼300 students; spoke at 2 colloquia; received 1 grant
- Selected courses: Calculus III & IV; Modern Algebra; Linear Algebra; Combinatorics; Foundations of Geometry; Math in the Modern World; World Thought & Culture III; Mathematical Methods in Physics (with `Mathematica`); Intro Computing (with `VBA`); `Python` Programming

Assistant Professor, Department of Mathematical Sciences — *Sweet Briar College*, 2009–2015
- Taught 34 courses (8 distinct) & ∼400 students; mentored 8 research students; spoke at 9 conferences & 9 colloquia; received 8 grants (2 external)
- Selected courses: Calculus III; Mathematical Statistics; Algebraic Structures; Abstract Algebra; Mathematical Proofs; `Java` Programming

Teaching Fellow, Department of Mathematics — *Harvard University*, 2008
- Taught 2 courses & ∼50 students; spoke at 3 conferences & 4 colloquia; received 2 grants (1 external)
- Courses: Introduction to Functions & Calculus; Linear Algebra & Differential Equations

Math Editor, McDougal Littell — *Houghton Mifflin Company*, 2005
- Customized Ron Larson's *Geometry* for Texas schools by correlating ∼80 textbook sections with Texas state standards
- Proofread & reformatted ∼800 pages; wrote ∼200 new standardized test preparation exercises

Summer Research Intern, AT&T Labs–Research — *AT&T Shannon Laboratories*, 2003
- Researched location & tightening of upper bounds for optimal codes correcting a single transposition error
- Programmed in `Maple` to find first 10 bounds; helped to conjecture pattern for subsequent bounds

MAJOR SCHOLARSHIPS & FELLOWSHIPS

AT&T Labs Fellow: AT&T Labs Fellowship Program (*3-year full tuition, stipend, & internship*) — *AT&T Labs–Research*, 2003
National Defense Science & Engineering Graduate Fellow[†] (*3-year full tuition & stipend*) — *American Society for Engineering Education*, 2002 & 2003
National Science Foundation Graduate Research Fellow (*3-year full tuition & stipend*) — *National Science Foundation*, 2002
Churchill Scholar (*1-year full tuition & stipend at Cambridge*) — *Winston Churchill Foundation of the United States*, 2002
UK Fulbright Scholar National Finalist: United States — *Fulbright Scholar Program*, 2002
Rhodes Scholar State Finalist: Michigan — *The Rhodes Trust*, 2001
Marshall Scholar Regional Finalist: Midwest — *Marshall Aid Commemoration Commission*, 2001
Alumni Distinguished Scholar (*4-year full room, board, & tuition at Michigan State*) — *Michigan State University*, 1997
National Merit Scholar: John M. Stalnaker Memorial Scholarship (*4-year, $10,000 total*) — *National Merit Scholarship Corporation*, 1997

SELECTED NATIONAL AWARDS

William Lowell Putnam Competition: Top 500 — *Mathematical Association of America*, 2000 & 2001
Alice T. Schafer Mathematics Prize: Honorable Mention — *Association of Women in Mathematics*, 1999
Mathematical Contest in Modeling: Honorable Mention — *Consortium for Mathematics & Its Applications*, 1998 & 1999
Phi Beta Kappa Society: Inductee — *Michigan State University*, 1999

RECENT SOFTWARE PROJECTS

Google Foobar Challenge, `Python`: Invitation-only online programming challenge — 2017
- Completed all five levels within allotted time periods

Math Genealogy Mapper,[¶] `Python`: Web scraper to extract math PhD student-advisor lineages — 2017
- Crawls Math Genealogy Project website & collects data for given mathematician; generates LaTeX file to output formatted PhD tree as PDF

Bull's-Eye Guesstimation,[¶] `Swift`: Graphical iOS guessing game — 2016
- Stores user statistics & customization via Core Data; optimizes storage space by generating vector graphics at runtime

Kanoodle Solver, `C++`: Interactive app to solve Kanoodle Puzzles — 2016
- Inputs puzzle from file or manually using symmetries & solves it via depth-first search; outputs results graphically in user-chosen colors

TECHNICAL SKILLS

`C/C++`;[Σ] `Python`;[Σ] `LaTeX`;[Σ] `Swift`;[ℂ] `Mathematica`;[ℂ] `VBA`;[ℂ] `MySQL`;[λ] `AppleScript`;[λ] `MATLAB`;[λ] `Maple`;[ℝ] `Java`;[ℝ] `Pascal`[ℝ]

[†] *declined* [¶] *in progress* [Σ] *significant experience* [ℂ] *current or recent experience* [λ] *limited experience & rusty* [ℝ] *significant prior experience but rusty*