

# LAUREN P. BRUBAKER

## QUALIFICATIONS PROFILE

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Motivated individual with research, industry, and classroom experience in Mathematics and Statistics poised to leverage experience and education toward continuing a successful career as a Mathematics Instructor.

- Completed graduate work in Engineering Applied Mathematics at The University of Akron with research interests in programming, numerical methods, and differential equations.
- 11 years of experience teaching undergraduate Mathematics in various classroom settings.
- Currently pursuing MBA to have ability of teaching business courses in the future.
- M.S. in Applied Mathematics and Cum Laude graduate with B.S. in Mathematics.
- Proficient in numerous programming languages and Mathematical software such as SQL, MATLAB, SAS, LaTeX, Mathematica, MS Excel, MS Access, and Maple.
- Analytical professional experience include Statistician II at a large retail corporation and Senior Product Analyst in the insurance industry.

## EDUCATIONAL BACKGROUND

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### **Ph.D. - Engineering Applied Mathematics (A.B.D.)**

August 2006 – August 2012

The University of Akron, Akron, OH

Completed 30 total classroom hours and passed qualifying and candidacy exams.

### **Masters of Science - Applied Mathematics**

Graduated May 2006

The University of Akron, Akron, OH

Thesis Advisors – Dr. Jianping Zhu and Dr. Laura Gross

Thesis Title: *Completely Residual Based Code Verification*

### **Bachelor of Science – Mathematics**

Graduated May 2003

Marietta College, Marietta, OH

Cum Laude, Trustees' Scholarship Recipient

Minor: Philosophy

## TEACHING EXPERIENCE

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### **Mathematics Lecturer**

July 2017 – Present

Metropolitan Campus, Cuyahoga Community College, Cleveland, Ohio

- 16 hour course load in Fall 2017 and 15 hour course load in Spring 2018 with additional summer classes
- Participating in Onboarding to teaching and learning program

### **Mathematics Instructor**

June 2016 – May 2017

Department of Science and Mathematics, Ventura College, Ventura, CA

- Teaching duties include Calculus I and Beginning Algebra courses

**Online Visiting Professor and Tutor**

March 2012 – July 2014

DeVry University, Online

- Courses taught include Precalculus and Analytical Calculus
- Facilitated online classroom environment by maintaining weekly discussion boards, completing weekly feedback, and provided tutoring through email and phone.

**Visiting Assistant Professor**

August 2011 – May 2013

Department of Mathematics, Marietta College, Marietta, OH

- Departmental courses taught include College Algebra, Practical Statistics, Calculus I, II and III, Geometry, Advanced Engineering Mathematics, and Differential Equations.
- Duties include developing course syllabi, composing lesson plans and presenting lectures, writing and administering quizzes and exams, creating and grading homework, holding office hours, and computing final grades.
- Member of the campus community, with participation in many on-campus academic and faculty events and committees.

**Adjunct Instructor**

June 2011 – July 2011

Department of Mathematics, Stark State College, North Canton, OH

- Taught eight-week accelerated College Mathematics course.
- Homework was assigned through use of MyMathLab.

**Graduate Assistant**

August 2003 – May 2005, August 2006 – May 2011

Department of Theoretical and Applied Mathematics, The University of Akron, Akron, OH

- Departmental courses taught include Intermediate and College Algebra, PreCalculus, Business Calculus, Calculus I, II and III, and Ordinary Differential Equations
- Assisted professor in grading homework for Advanced Engineering Mathematics course.

**PROFESSIONAL EXPERIENCE**

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**Senior Product Analyst**

June 2013 – September 2016

Farmers Group, Inc., Woodland Hills, CA

- Responsible for assisting various Product Managers in analytical processes such as querying data, data analysis, ratemaking, making pricing recommendations, and new product development.
- Work includes both state and industry pricing and product management.
- Member of the Farmer's Women's Inclusion Network
- Participated in many corporate sponsored volunteer opportunities.

**Statistician II**

June 2005 – August 2006

American Greetings, Cleveland, OH

- Supplied merchandising performance insight using quantitative analysis and retail testing.
- Developed and applied analytical models to solve problems using statistical analysis.
- Presented conclusions and recommendations to all levels of the organization.
- Daily data mining tasks were completed with the use of MS Access, MS Excel, and SAS.

## RESEARCH EXPERIENCE

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**Graduate Assistant** August 2003 – May 2005 August 2006 – May 2011  
Department of Theoretical and Applied Mathematics, The University of Akron, Akron, OH

- Conducted individual research used to write Master's thesis and Ph.D. dissertation.
- Research areas involved numerical methods, differential equations, and perturbation methods.

**Researcher** June 2002 – July 2002  
Summer Program for Women in Math, George Washington University, Washington, D.C.

- Granted stipend for attending NSA program to obtain research skills and overall Mathematical integrity.
- Studied coursework in queuing theory, math logic, knot theory, and manifolds.

## PUBLICATION

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L. P. Brubaker, L. K. Gross, and J. Zhu, "On a completely residual-based method for computer code verification," *International Journal of Neural, Parallel, and Scientific Computations*, Vol. 14, pp. 337-344, 2006.

## PRESENTATIONS

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**Oral Presenter**  
"Numerical Methods of a Frontal Polymerization Model" April 2010  
Conference on Undergraduate and Graduate School Research, The University of Akron

**Presenter** December 2004, 2009, 2010  
Department of Theoretical and Applied Mathematics Student Poster Session

## OTHER ACTIVITIES AND MEMBERSHIPS

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- Scholarship Advisor, Chi Omega Sorority September 2012 – May 2013
- Member, Ohio MAA's Project NeXT (New Experience in Teaching) August 2011 – May 2013
- Instructor, Adventures in Alice Programming Camp June 2012
- Mentor, University of Akron Learning Assistant Program Spring 2007, Spring 2010
- President, Pi Mu Epsilon, Math Honor Society April 2004 – May 2005
- Women in Mathematics, The University of Akron Fall 2003 – May 2005
- Member, Marietta College Softball Team August 1999 – May 2003
- Member, Chi Omega Sorority 1999 – 2003
- Member, Kappa Mu Epsilon, Math Honor Society April 2001 – May 2003
- Treasurer, Alpha Lambda Delta, Freshman Honor Society March 2001 – May 2003
- Treasurer, Gamma Sigma Alpha, Greek Honor Society March 2002 – May 2003
- Attendee, SIAM 50<sup>th</sup> Anniversary and Annual Meeting July 2002
- Participant, East Central Colleges Math Competition April 2001

## TECHNICAL SKILLS

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- Mathematical/Statistical software: Maple, Mathematica, LaTeX, Xmgrace, Gnuplot, SAS
- Programming Languages: MATLAB, Fortran, SQL
- Office applications: Microsoft Word, Excel, PowerPoint, Outlook, and Access
- Operating systems: Microsoft Windows, Linux
- Teaching applications: Moodle, Webassign, MathXL, MyMathLab