BRANDON MILONOVICH
bmilonovich@gmail.com

EDUCATION

Teachers College, Columbia University, New York, NY
Doctor of Philosophy in Mathematics Education
Coursework focused in content, research, and the teaching of mathematics   **In Progress**

Teachers College, Columbia University, New York, NY
Master of Philosophy in Mathematics Education   **October 2017**

The College of Saint Rose, Albany, NY
Master of Science in Education in Higher Education Leadership & Administration   **August 2015**

Syracuse University, Syracuse, NY
Master of Science in Teaching and Curriculum with Emphasis in Math Education   **December 2012**

The College of Saint Rose, Albany, NY
Bachelor of Arts in Adolescence Mathematics Education   **May 2011**
G.P.A. 3.92/4.0
Honors: Summa cum laude, Kappa Delta Pi Education Honor Society

CERTFICATION

New York State Professional Certification in Mathematics Education: Grades 7-12

AWARDS

LHRIC Transforming Education Through Leading & Learning (TELL) Outstanding Innovative Teacher Award	March 2017
National Association of Graduate-Professional Students Lifetime Achievement Award	November 2014
R. Mark Sullivan Institute for Higher Education Leadership Founders Scholarship	June 2013
Roland and Barbara Cook Scholarship, Syracuse University	May 2011
NHLBI-VCU World Congress Scholarship	May 2011
Outstanding Senior in Mathematics Adolescence Education Award	March 2011
Pacific Coast Undergraduate Math Conference Travel Grant	March 2011
Joint Mathematical Meetings Travel Grant, MAA	January 2011
AMTNYS Scholarship for Future Mathematics Teachers	November 2010
MathFest Travel Grant, MAA	August 2010
New York State Leaders of Tomorrow Scholarship	June 2008

TEACHING EXPERIENCE

Ardsley High School, Ardsley, NY
Computer Science/Mathematics Teacher   **September 2015-Present**

- Teach AP Computer Science A, AP Computer Science Principles, Introduction to Computer Science, SUPA Introduction to Information Security, and Geometry.
- Advise Ardsley Innovate, Ardsley Robotics, and Ardsley Girls Who Code clubs
- Developed and implementing plans to increase enrollment in computer science courses.
- Institutionalized a regional student hackathon involving students from across the county.

Haldane Central School, Cold Spring, NY
Mathematics Teacher   **September 2013-June 2015**
- Taught Algebra 2/Trigonometry, Algebra 1, Introduction to Programming, and AIS
- Advised High School Student Council

Capitol District Educational Opportunity Center, Troy, NY
Adjunct Instructor   **January 2013-June 2013**
- Taught Algebra to students of all age ranges with skill levels from 5th to 9th grade

The College of Saint Rose Department of Mathematics, Albany, NY
Adjunct Instructor   **November 2012-Present**
- Teach Elementary Statistics, Educational Computing, and Introduction to Computer Science

Syracuse University Department of Mathematics, Syracuse, NY
Graduate Teaching Assistant   **August 2011-December 2012**
- Taught Precalculus during the Fall 2011 and 2012 semester, Calculus I during Spring 2012 and Summer 2012

Schoharie Junior/Senior High School (Grades 8-9), Schoharie, NY
Gloversville High School (Grades 9-12), Gloversville, NY
Mathematics Education Student Teaching   **January 2011-May 2011**
- Taught a variety of courses including Algebra, Math 8, Pre-Geometry, and Business Math
- Increased use of technology to engage students in interactive 21st century learning

Help Yourself Academy, The College of Saint Rose, Albany, NY
Grade 7 Instructor   **October 2010-August 2011**
- Guest instruct bi-monthly lessons using the programming language Scratch to highlight mathematical and technology concepts to students

Arbor Hill Elementary School, Albany, NY
Scratch Program Instructor   **September-December 2010**
- Developed and instructed lessons to engage students in using Scratch to learn mathematics

Thomas O'Brien Academy of Science & Technology, Albany, NY
Scratch After School Program Instructor   **January 2010-June 2013**
- Co-planned and organized a new and innovative after school program
- Prepare and teach hands-on lessons engaging students in learning STEM concepts through programming in Scratch

HFM BOCES School Districts, Fulton/Montgomery County, NY
Substitute Teacher (Grades 6-12)   **December 2009-June 2013**
- Implement lesson plans in the absence of regular teachers in the Gloversville, Amsterdam, and Broadalbin-Perth School Districts

Amsterdam High School (Grades 9-12), Amsterdam, NY
Broadalbin-Perth School District (Grades 8-12), Broadalbin, NY
Mathematics Education Field Experience   **September 2009-December 2010**
- Designed and taught two interactive calculus lessons
- Assisted teacher with helping students practice and review for upcoming exam

RELATED EXPERIENCE

Hunter College
Computer Science Assessment Fellow   **September 2018 – Present**
- Serving as a member of the Design Team for the *Integrating Formative Assessment of Computational Thinking with Self-Regulated Learning* project.

Dark Enterprises (Contracted by NSA/NSF GenCyber Program)
Site Visitor and Pre-Camp Support Specialist   **November 2017 – Present**
- Visit GenCyber cybersecurity camps across the country to provide pedagogical feedback and guidance.
- Work with new camps to provide assistance and suggestions in crafting a meaningful cybersecurity camp experience.

Information Technology Services, The College of Saint Rose, Albany, NY
Student Technical Support Specialist   **May 2010 – August 2011**
- Created and implemented program providing student educational technology support
- Designed and taught new workshops to students on technologies such as Blackboard, SMART Interactive Whiteboard/Notebook, and building websites
- Developed Android application to provide mobile access to important campus information

OTHER EXPERIENCE

Hannaford Supermarket, Rotterdam, NY
Bookkeeper/Customer Service Leader/Trainer   **May 2006 – July 2013**

PUBLICATIONS AND PAPERS

Guest Editor of *Journal of Mathematics Education at Teachers College*
Teachers College, Columbia University, New York, NY   Fall 2016/Spring 2017

Scratch Cookbook
Packt Publishing, Birmingham, UK   July 2013

Review of *Number Crunching: Taming Unruly Computational Problems from Mathematical Physics to Science Fiction*
Mathematics Teacher, National Council of Teachers of Mathematics   March 2013

Power in the Teacher-Student Relationship: It Matters
Journal of Undergraduate Research, The College of Saint Rose, Albany, NY   Spring 2011

Injecting Computer Science into the K-12 Classroom
Paper and presentation to the Journal of Computing Sciences in Colleges   April 2011

CONFERENCES AND PRESENTATIONS

Taking Your Classroom to the Next Level: Flipping, Agile, and Gamification
LHRIC TLI Tech Expo 2019, Briarcliff Manor, NY   April 23, 2019

Innovative Approaches to Teaching High School Cybersecurity
NICE K12 Cybersecurity Education Conference, San Antonio, TX   Dec 3, 2018

Thematic Teaching & Learning in Cybersecurity
GenCyber Fall Conference, Phoenix, AZ   Sept 20, 2018

Google as your Teaching Assistant
LHRIC TLI Tech Expo 2018, Briarcliff Manor, NY   May 11, 2018

An Asynchronous Approach to AP Computer Science
CSTA Annual National Conference, Baltimore, MD   July 10, 2017

Rethinking Learning Spaces: it's not just about comfy chairs
LHRIC TLI Tech Expo 2017, Briarcliff Manor, NY   April 7, 2017

Hands-on Geometry: Integrating Constructions to Deepen Understanding
66th Annual AMTNYS Fall Conference, Rye, NY   Nov 12, 2016

Differentiating for All: Experiences with Flipped Mathematics and Computer Science
66th Annual AMTNYS Fall Conference, Rye, NY   Nov 11, 2016

Inspiring Creativity and Passion in the Computer Science A Curriculum with Genius Hour
CSTA Annual National Conference, San Diego, CA   July 11, 2016

Tech Integration & Productivity: How can the iPad help?
NYSCATE Hudson Valley Conference, Wappingers Falls, NY   March 7, 2015

Using Clickers to Spark the Discussion
2013 NCTM Regional Conference, Las Vegas, NV   October 24, 2013

Scratching the Flipped Classroom Math Itch through Blended Learning
2013 ISTE Annual Conference, San Antonio, TX   June 24, 2013

Student Response Systems and Getting Students Talking
2013 NCTM Annual Meeting, Denver, CO   April 19, 2013

Suborbital Astronautics Workshop
Participant through Teachers in Space Foundation, Palmdale, CA   July 2012

Saint Rose Alumni Scratching Intergenerational Teaching and Learning
Scratch at MIT 2012, Cambridge, MA   July 26, 2012

Conference Co-Chair
Presented *Hands-on Scratch Programming with Pico Boards*
Scratch Day, Thomas O'Brien Academy of Science & Technology, Albany, NY   May 19, 2012

Student Response Systems in the Mathematics Classroom
Technologies in Education Conference, The College of Saint Rose, Albany, NY   May 17, 2012

Conference Chair
NAGPS Northeast Regional Conference, Syracuse University, Syracuse, NY   April 20-22, 2012

Exploring Regressions through Geometer's Sketchpad and Microsoft Excel
MAA Session on Effective Use of Dynamic Mathematical Software in the Classroom
AMS/MAA Joint Mathematics Meetings, Boston, MA   January 4, 2012

Scratching my Itch to be a Blended Learner
NYSCATE 2011 Annual Conference, Rochester, NY   November 22, 2011

Retooling the Syracuse GSO Executive Board—A Request for Insights and Ideas
NAGPS 25th Annual National Conference, Boulder, CO   October 29, 2011

STEM Modeling in the Secondary Setting to Deepen Understanding
47th Annual AMTNYS Summer Workshop, Siena College, Loudonville, NY   August 3, 2011

*Authentic Assessment: User Feedback Driving the e-Portfolio Process for
Teacher Candidates*
AAEEBL e-Portfolio World Summit 2011, Boston, MA   July 26, 2011

*Authentic Assessment: User Feedback Driving the e-Portfolio Process for Teacher
Candidates*
Presented paper, World Conference on Educational Multimedia, Hypermedia and
Telecommunications
Lisbon, Portugal   June 27, 2011

Mathematical Analysis of the Hodgkin-Huxley Model for Cardiac Action Potentials
Presented poster, NHLBI/VCU World Congress on Mathematical Modeling and
Computational Simulation of Cardiovascular and Cardiopulmonary Dynamics
The College of William and Mary, Williamsburg, VA   May 31-June 3, 2011

Conference Co-Chair
Presented *Dynamic Geometry in the Mathematics Classroom*
Technologies in Education Conference, The College of Saint Rose, Albany, NY   May 16-17, 2011

Engaging Students with Interactive Web Tools
Hudson-Mohawk Valley Area Mathematics Conference
Schenectady High School, Schenectady, NY   March 26, 2011

Scratch In-Service Training Workshop
The College of Saint Rose, Albany, NY   March 19, 2011

Pacific Coast Undergraduate Math Conference
Loyola Marymount University, Los Angeles, CA   March 12, 2011

Inspiring Students through Web Tools
NYSCATE Hudson Valley Conference 2011
Roy C. Ketcham High School, Wappingers Falls, NY   March 5, 2011

Mathematical Analysis of the Hodgkin-Huxley Model for Cardiac Action Potentials
MAA Undergraduate Poster Session, AMS/MAA Joint Mathematical Meetings
New Orleans, LA   January 8, 2011

SCRATCHing the "Gamer" Generation
NERIC Regional Technology Awareness Day, Albany, NY   December 10, 2010

Teaching in the Cloud: It's Elementary
NERIC Regional Technology Awareness Day, Albany, NY   December 10, 2010

The Leontief Input-Output Model for Linear Algebra
Guest Lecture, Linear Algebra, The College of Saint Rose, Albany, NY   December 7, 2010

21st Century Learning Through Scratch Programming
NYSCATE 2010 Annual Conference, Rochester, NY   November, 23 2010

Scratch: A 21st Century Learning Tool
The 60th Annual AMTNYS Fall Conference, Saratoga Springs, NY   November 11, 2010

The Basics of Using the SMART Interactive White Board
Arbor Hill Elementary School Professional Development Session, Albany, NY   November 10, 2010

Scratch Your Way to Inquiry
3rd Annual Capital Region Inquiry Forum, HVCC, Troy, NY   October 8, 2010

Educating Youth Through 21st Century Learning in Scratch
NYS STEM Education Institute, Oswego, NY   August 11, 2010

Mathematical Economics: The Leontief Input-Output Model
MAA Student Paper Session, MathFest, Pittsburgh, PA   August 6, 2010

Summer Program in Science, Technology, Engineering, and Mathematics
Florida State University, Tallahassee, FL   July 18-30, 2010

Mathematical Economics: The Leontief Input-Output Model
Presented poster at The College of Saint Rose Undergraduate Research Symposium
Albany, NY   April 20, 2010

Scratch: A 21st Century Learning Tool
Presented poster at The College of Saint Rose Undergraduate Research Symposium
Albany, NY   April 20, 2010

Scratch: A Computer Programming Language for Children
First Annual Educator Induction Conference, The College of Saint Rose, Albany, NY   March 13, 2010

PROFESSIONAL ACTIVITIES

High School Scheduling Committee	September 2017-Present
Ardsley Technology Committee Member	September 2015-Present
High School Technology Facilitator	September 2015-Present
HFA Audit Committee Member	September 2014-June 2015
Student Council Advisor	September 2014-June 2015
Technology Committee Member	September 2013-June 2015
Educational Planning Committee Member	September 2013-June 2015
Haldane High School, Cold Spring, NY	

Vice-President & COO	November 2012-December 2014
Interim President & CEO	January 2013-March 2013
Northeast Regional Chair	October 2011-November 2012
National Association of Graduate-Professional Students	

Computing Services Committee Chair	September 2012-December 2013
Computing Services Committee Member	September 2011-2012
Graduate Student Organization Webmaster	June 2012-June 2013
Graduate Student Organization University Senator, Syracuse University, Syracuse, NY	September 2011-December 2013

MEMBERSHIPS

American Mathematical Society
New York State Association for Computers and Technologies in Education
Association of Mathematics Teachers of New York State
Mathematical Association of America
National Council of Teachers of Mathematics
Institute of Mathematical Statistics
International Society for Technology in Education
Computer Science Teachers Association

SPECIALIZED SKILLS

Proficient in use of Canvas, Blackboard, Java, HTML/CSS, Python
Intermediate skill in Maple, Android Development, LaTex, C#, JavaScript
Novice skill in Visual Basic, ASP.NET, Swift

VOLUNTEER EXPERIENCE

Friday "Knights" Program, The College of Saint Rose, Albany, NY, January 2010-May 2011
Reach Out Saint Rose Day, The College of Saint Rose, Albany, NY, Fall 2009/2010
Shared Decision Making Team Member, Broadalbin-Perth High School, 2007-2010