

SUMMARY OF QUALIFICATIONS

- Experienced with R and RStudio through years of graduate level statistical training.
- Strong willingness to teach others and learn new skills developed through extensive background in tutoring, teaching, and mentorship.
- Leadership skills and experience coordinating with students and administration through student government and event planning.
- Committed to development of open-source tools and instructional materials for equitable opportunities.

EXPERIENCE

2/21 - PRESENT

(UR)₂ MENTOR, UNIV. OF ROCHESTER

- Ongoing meetings with undergraduate students interested in gaining experience applying statistical methods to biological problems.
- Guiding students to develop computational skills to carry out analyses in R and Bioconductor through RStudio.

SUMMER 2018

URMC PREP R WORKSHOP, UNIV. OF ROCHESTER

- Co-presenter in workshop for new student researchers learning R and RStudio.
- Introduced general topics for working with R, including object types, data structures, and best practices for coding.

4/19 - PRESENT

WORKING GROUP IN BAYESIAN METHODS, UNIV. OF ROCHESTER

- Collaborated with student cohort and faculty advisor in RStan sampling study.
- Independently wrote and implemented Stan code for a random effects models.
- Simulated repeated measurement data employed in MCMC sampling study with RStan under a variety of sampling and tuning parameter combinations.
- Prepared materials to assess estimation and diagnostic performance with R Markdown.

5/18 - PRESENT

GRADUATE STUDENT RESEARCHER, MCCALL LAB, UNIV. OF ROCHESTER

- Collaborated with a pathologist to study effects of tissue composition on differential expression analyses with deconvolution methods.
- Designed and implemented an algorithm to simulate repopulation of microglia under faculty supervision.
- Presented research findings in both internal and external lab meetings.

ZACHARY BREHM (he/him)

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(518) 396 - 6036

[LinkedIn](#) | [GitHub](#)

9/15 - 5/17

TUTOR, TRIO STUDENT SUPPORT SERVICES, SUNY POTSDAM

- Designated tutor for introductory mathematics and statistics courses.
- Weekly one-on-one tutoring sessions with students from diverse backgrounds to provide additional assistance with mastering course material.

9/15 - 5/16

TUTOR, MATH LAB, SUNY POTSDAM

- Held weekly office hours for walk-in assistance with all lower-level mathematics and statistics courses.

2014

ADJUNCT INSTRUCTOR, CRANE SCHOOL OF MUSIC, SUNY POTSDAM

- Instructed beginning guitar students to develop musical skills in classroom and one-on-one settings.
- Tailored instruction and assignments to individual student interests.
- Prepared one private student to earn acceptance into the university degree program.

SUMMER 2013

ADMINISTRATIVE INTERN, AUSTIN CLASSICAL GUITAR

- Worked in teams across areas including education and outreach, event planning, and artist relations.
- Prepared sheet music for beginning guitar students for GuitarCurriculum.com.
- Assisted with planning and execution of the annual teacher training seminar.
- Coordinated with local vendors and venues to plan and present public and private concerts with local and international artists.

EDUCATION

PRESENT

PHD STATISTICS, UNIV. OF ROCHESTER

3/19

MA STATISTICS, UNIV. OF ROCHESTER

5/17

BA/MA MATHEMATICS, SUNY POTSDAM

Sophomore Mathematics Alumni Award for Excellence in Mathematics

Pi Mu Epsilon Mathematics Honor Society

Vasily Cateforis Scholarship

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12/15

BM/MM MUSIC, CRANE SCHOOL OF MUSIC, SUNY POTSDAM

SERVICE

1/19 - PRESENT

GRADUATE STUDENT SOCIETY, UNIV. OF ROCHESTER

- Vice President since 9/20, Dept Representative since 1/19.
- Regular meetings with administration to voice student concerns.
- Planned variety of social events for community building within the student body and to assist the greater Rochester community.

1/19 - PRESENT

BST DEPARTMENT SOCIAL COMMITTEE, UNIV. OF ROCHESTER

- Co-organized weekly gatherings for students, faculty, and guests of the Department of Biostatistics to foster healthy social interactions outside of work.

1/2011 - 12/2014

GUITAR STUDIO PERFORMANCE WORKSHOP, CRANE SCHOOL OF MUSIC

- Lead organizer of weekly gatherings for guitar studio members to gain additional performance experience and feedback.

COMPUTER SKILLS

- R, Bioconductor
- LaTeX
- Basic knowledge of HTML and CSS
- LINUX, MacOS
- GitHub
- RStan