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Zihan Zhang (Steven)

Education

Sep 2023 - Present **University of Washington (UW), Department of Applied Mathematics**,
PhD Student, Applied Mathematics.

Sep 2019 - May 2023 **New York University (NYU), Courant Institute of Mathematical Sciences**,
BA, Mathematics with Honors & Computer Science, [courses].

Research Experiences

Sep 2023 - Present **Graduate Research Assistant, UW**, *Seattle, WA.*
- Mentor: Prof. Eric Shea-Brown, Computational Neuroscience Center, UW.

Jul 2021 - May 2023 **Student Researcher, NYU**, *New York, NY.*
- Mentor: Prof. David W. McLaughlin & Dr. Guanchun Li, Courant Institute & Center for Neural Science.

Dec 2021 - Present **Research Assistant in Applied Mathematics Laboratory (AML), NYU**, *New York, NY.*
- Mentor: Prof. Leif Ristroph & Dr. Scott Weady, Courant Institute.

Jan 2022 - Dec 2022 **Independent Study, NYU**, *New York, NY.*
- Mentor: Prof. Russel E. Caflisch, Courant Institute.

Internship Experiences

Nov 2023 - Present **Visiting Scientist, Allen Institute for Brain Science**, *Seattle, WA.*
- Mentor: Prof. Stefan Mihalas & Dr. Uygar Sümbül.

May 2023 - Aug 2023 **Summer Research Assistant, Center for Computational Biology, Flatiron Institute**, *New York, NY.*
- Mentor: Dr. Adam Lamson & Prof. Michael J. Shelley, Flatiron Institute.

May 2022 - Aug 2022 **Fields Undergraduate Summer Research Program, University of Toronto**, *Toronto, Ontario (virtually).*
- Mentor: Prof. Jeremie Lefebvre, Brain and Mind Research Institute, University of Ottawa.

May 2021 - Dec 2021 **Quantitative Hedge Fund Developer, Egret Quant**, *Shanghai, China.*
- Mentor: Dr. Jiayi Xie.

Nov 2019 - Sep 2021 **Research Assistant in Data Collection and Machine Learning, NYU**, *New York, NY.*
- Mentor: Prof. John T. McDevitt & Dr. Deniz Vurmaz, NYU College of Dentistry.

Publications

Preprint.

2 **Z Zhang, A Lamson, R Blackwell**, *Use Adaptive Fast Function Approximator in Motor-Filament Binding Kinetics*, [arXiv:2311.03602].

1 **T Zhang, L Medina, Z Zhang**, *Existence of Optimal Vortex Solitons in Photorefractive Media.* SIAM Undergraduate Research Online (SIURO), under review, [arXiv:2302.13151].

Miscellaneous.

1 **B Johnson, Z Zhang, A Kim, S Weady, L Ristroph**, *Lab Icebergs Melt Down and Flip Out.* Gallery of Fluid Motion, [doi.org/10.1103/APS.DFD.2023.GFM.P0011].

Honors & Awards

2023 American Physical Society's Division of Fluid Dynamics (APS/DFD) Milton van Dyke Award.
2023 UW Top Scholar Fellowship Award.
2023 UW AMATH Computing Scholarship.
2023 Joint Mathematics Meetings (JMM) Undergraduate Travel Award.
2022 Courant Institute Summer Undergraduate Research Experience (SURE) Grant.
2022 Spring Dean's Undergraduate Research Fund (DURF) Grant, *Daniel A. and Amy L. Rock Research Scholar.*
2020 International Collegiate Programming Contest (ICPC): North America Division Championships, *Honorable Award.*
2020 International Collegiate Programming Contest (ICPC): Greater NY Regional Contest, *Silver Medal.*
2020 The Mathematical Contest in Modeling (MCM), *Honorable Mention Award.*
2019,2020 Dean's List for Academic Year, *Tandon School of Engineering.*

Teaching Experiences

Autumn 2023, Winter 2024 **Teaching Assistant**, *MATH 124 Calculus with Analytic Geometry I*, UW.

Spring 2022 **Grader**, *MATH-UA 144 Introduction to Computer Simulation*, NYU.

Spring 2020 **TRIO Scholars Program**, *Tutor for Calculus III*, NYU.

Presentations

2023 Computational Molecular Biology Program Annual Symposium, UW.

2023 Summer@Simons Poster Session, Flatiron Institute.

2023 Biophysical Modeling Lab Meeting, Flatiron Institute.

2023 49th Annual Research Conference, NYU, *Best in Poster Group*.

2023 Joint Mathematics Meetings (JMM), AMS-PME Student Poster Session.

2022 Summer Undergraduate Research Experience (SURE) 2022 Research Presentation, NYU.

2022 MAA MathFest Undergraduate Student Poster Session, *Outstanding Poster*.

Additional Trainings

2024 Mathematical Approaches for Connectome Analysis, IPAM.

2023 Introduction to Neuroinformatics, INCF.

2023 Deep Learning in PyTorch, Flatiron Institute & Nvidia.

2023 Biophysical Modeling Software Summer School, Flatiron Institute.

References

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Investigator,
Allen Institute for Brain Science,
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