Brayden Letwin

University of Alberta
Edmonton, AB, Canada
bletwin@ualberta.ca   —   `braydenletwin.com`

About Me

I am an undergraduate student at the University of Alberta. I primarily study mathematics and spend my free time learning computer science and finance. I am interested in harmonic and functional analysis, partial differential equations, probability, algebraic topology, approximation and probabilistic algorithms, and mathematical finance. My main area of expertise is in the study of reconstruction problems in convex geometry, where I worked under Vladyslav Yaskin for the last two years.

I am currently working under Beatrice Vritsiou and Alexander Litvak, studying problems in convex geometry and probability theory. In my free time I like to study the markets, and compete in finance competitions.

Education

- **University of Alberta**
  Bachelor of Science (Honors), Mathematics, GPA 3.8/4.0   *2022 - 2026*.

Work Experience

- **MSS USRA**, Summer 2025:
  Under the supervision of Alexander Litvak and Beatrice Vritsiou.

- **Undergraduate Teaching Assistant, University of Alberta**, 2024-2025:
  Grading for MATH 216 (Introduction to Analysis).

- **Undergraduate Teaching Assistant, University of Alberta**, 2023-2024:
  Grading for CMPUT 304 (Algorithms II).

- **Undergraduate Teaching Assistant, University of Alberta**, 2023-2024:
  Grading for MATH 146 (Calculus for the Mathematical and Physical Sciences II).

- **Undergraduate Teaching Assistant, University of Alberta**, Winter 2024:
  Grading for MATH 144 (Calculus for the Mathematical and Physical Sciences I).

- **Undergraduate Teaching Assistant, University of Alberta**, 2023-2025:
  Lab Coordinator for CMPUT 175 (Introduction to the Foundations of Computation II).

- **NSERC USRA**, Summer 2023, Summer 2024:
  Under the supervision of Vladyslav Yaskin.

Projects and Competitions

- **IMC Prosperity 3 Trading Challenge**, Finished top 2%,   *April 2025*.

- **Rotman International Trading Competition**, Finished top 30%,   *February 2024*.

Selected Awards

- MSS Undergraduate Student Research Award, University of Alberta, *2025.*

- Cyril G Wates Memorial Scholarship, University of Alberta, *2024.*

- NSERC Undergraduate Student Research Award, University of Alberta, *2024.*

- Jason Lang Scholarship, University of Alberta, *2023.*

- Murray Thomas Gibson Memorial Scholarship in Mathematics, University of Alberta, *2023.*

- Dean's Honor Roll, University of Alberta, *2023.*

- NSERC Undergraduate Student Research Award, University of Alberta, *2023.*

- Max Wyman Memorial Entrance Leadership Scholarship, University of Alberta, *2021.*

- Alexander Rutherford Scholarship, University of Alberta, *2021.*

Publications

- B. Letwin and V. Yaskin: *On a generalization of Grünbaum's inequality*, Isreal J. Math. arXiv:2410.04741.

Talks

- **Approximation Algorithms Seminar**, University of Alberta, Edmonton, AB, Canada, *May 2024.*
  Talk: *On a 4-approximation algorithm for the weak chromatic rectilinear art-gallery problem.*

- **Geometric Functional Analysis: Analytic, Discrete, and Probabilistic Aspects**, CMS Winter Meeting, Montreal, QC, Canada, *November 2023.*
  Talk: *On a generalization of Grünbaum's inequality.*

Workshops Attended

- **Symmetries of Root Systems**, Preliminary Arizona Winter School, Online, *Fall 2024.*

- **Harmonic Analysis and Convexity**, Banff International Research Station, Banff, AB, Canada, *November 2023.*

Academic Service and Volunteer Work

- **Undergraduate Mathematical Sciences Society**, University of Alberta, Edmonton, AB, Canada, *2024-2025.*
  Society executive.

- **CMS Alberta Summer Mathematics Camp**, University of Alberta, Edmonton, AB, Canada, *July 2024.*
  Lead coordinator.

- **Undergraduate Mathematical Sciences Society**, University of Alberta, Edmonton, AB, Canada, *2022-2023*.
  Society executive.

Last updated: April 22, 2025