

ALEX KAZACHEK

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EDUCATION

2019 – 2023 (projected)	University of Western Ontario ('UWO') Undergraduate Honours Specialization in Mathematics & Major in Data Science. Current GPA of 3.90.
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AWARDS

2021 Summer	NSERC USRA Received grant to support undergraduate research in mathematics.
2021 Winter	Cecil G. Gracey Memorial Continuing Scholarship Recognized as an academically-achieving second-year student in the Honours Mathematics program. Minimum 85% average required to qualify, 80% to continue.
2020 Winter	Borwein Memorial Prize Finished with the highest mark in Real Analysis I (Math 2122).
2019 & 2020 School Years	Dean's Honour Roll Achieved a year average of at least 80% with no failures, taking at least 4.0 courses.
2019 Fall	Western Scholarship of Excellence Had a university admission average at or above 90%, but less than 95%.

WORK EXPERIENCE

2021 Summer (on-going)	UWO Mathematics Department <i>Research Assistant</i> Researching mathematics, supervised by Dr. Tatyana Barron.
Feb 2017 – Mar 2020	Stoney Creek YMCA <i>Membership Sales & Services Representative</i> Co-led Accounts Receivable, maintaining regular correspondence with upwards of 100 members at a time, and consistently had fewest arrears despite being the largest branch (prior to 2019 merger). Regularly achieved one of the highest monthly hourly sales numbers.
2018 Summer	YMCA of Western Ontario <i>Camp Administrator</i> Led Camp Accounts Receivable, collecting over \$8000 in arrears within two weeks. Worked with various agencies, such as the Children's Aid Society and City of London, to process payments and subsidy applications. Assessed various financial documents and worked with families one-on-one to provide tailored payments plans through YMCA's Strong Kids charity.

CLUBS & COMMITTEES

2021 Summer (on-going)	Canadian Undergraduate Mathematics Conference ('CUMC') <i>Committee Member</i> Creating the new official website for this year's and future CUMCs, implementing desktop and mobile support as well as bilingual localization (English & French).
2020 Summer	<i>Committee Member</i> Successfully organized the software needed to suddenly transition the conference online, because of the Covid-19 pandemic, hosting 112 students from 22 universities and 4 countries. Arranged an industry panel of past mathematics undergraduates, including two senior employees at Lyft and a graduate student in financial engineering at Columbia University.
2020 & 2021 School Years (on-going)	Math Club at Western ('MaCAW') <i>VP Academics</i> Launched biweekly mathematics contests available to all undergraduate students, and helping write and grade these contests. Introduced student seminars, an opportunity for undergraduate students in mathematics or related disciplines to share their independent studies and projects.
2019 School Year	<i>Secretary (Pure Mathematics)</i> Co-ran weekly problem solving sessions, teaching recreational mathematics to and solving contest problems with other undergraduate students.

ACADEMIC ACTIVITIES

2020 Fall	Directed Reading Program Studied the Jordan-Brouwer separation theorem, supervised by graduate student Prakash Singh. Main reading of Guillemin and Pollack's DIFFERENTIAL TOPOLOGY, on transversality, homotopy, manifolds with boundary, intersections, and winding numbers. End-of-term presentation on ideas central to the proof of the separation theorem, involving transversal intersections of rays with hypersurfaces.
2020 Winter	Directed Reading Program Studied manifolds and smooth maps, supervised by graduate student Udit Mavinkurve. Preliminary reading of excerpts from Spivak's CALCULUS ON MANIFOLDS, relating to differentiation and continuity in \mathbb{R}^n . Main reading of Guillemin and Pollack's DIFFERENTIAL TOPOLOGY, covering smooth maps, manifolds, submersions, and immersions.
2019 Fall	William Lowell Putnam Mathematical Competition Scored 3/120, ranking 1831.5/3428.
2018 School Year	Western's Initiative for Scholarly Excellence ('WISE') One of the 100 admissions to the WISE program, enrolling in 1.0 courses at UWO concurrently with secondary school studies.

2017 & 2018 School Years	Advanced Placement ('AP') Credits Self-studied AP Calculus AB (2017), AP Statistics (2018), and AP Physics C: Mechanics (2018).
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VOLUNTEER ACTIVITIES

2020 Fall	Fall Preview Day <i>Student Ambassador</i> Represented the UWO mathematics department in the science faculty events. Answered questions from prospective students regarding mathematics courses and modules.
2020 Summer	SmartStart: Academics <i>Panellist</i> Represented MaCAW at the mathematics department meet-and-greet session. Answered questions from incoming UWO students regarding the transition from secondary school to university.
2019 Summer	Green Party of Canada <i>Student Volunteer</i> Participated in canvassing events for the 2019 Canadian election.
Dec 2015 – Feb 2017	Stoney Creek YMCA <i>Membership Sales & Services Volunteer</i> Led prospective members on facility tours, explaining amenities and services. Completed "Sunshine Calls", checking in with new members to answer any questions or concerns.

SKILLS

Programming	Coursework in Python , Java , and C . Experience in web development with HTML , CSS , and Javascript (React) . Courses covering data structures, analysis of algorithms, and cryptography.
Design	Proficient in \LaTeX , typesetting both text-based and mathematics-based documents. Knowledge of TikZ, creating plots and commutative diagrams, among other graphical figures. Familiar with Qualtrics, creating detailed and highly-customizable surveys.
Languages	Conversational fluency in Russian . Beginner knowledge of Japanese .