

Jan Kazimierczak

Second-Year Engineering Science Student | University of Toronto

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Portfolio: <https://jan.kazimierczak.eu> | GitHub: <https://github.com/JanKazimierczak>

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EDUCATION

Bachelor of Applied Science in Engineering Science (BASC)

| Expected May 2029

University of Toronto, Faculty of Applied Science & Engineering

Toronto, ON

Relevant coursework: Computer Programming; Algorithms and Data Structures; Engineering Mathematics and Computation; Electric Circuits; Structures and Materials; Engineering Design (Praxis I and II)

TECHNICAL SKILLS

Programming: Python, C#, MATLAB, R, Node.js, LaTeX

CAD, fabrication & hardware: Fusion 360, 3D printing, Cura, PrusaSlicer, Arduino Uno, Raspberry Pi, HX711, load cells

Languages: Polish (native), Spanish (native), English (C1)

ENGINEERING PROJECTS

Automated Robertson Screw Sorter - Machine Vision and Mechanism Design

| Jan 2026 - Apr 2026

Praxis II | University of Toronto

- Developed Raspberry Pi camera/CNN and passive inclined length-sorting prototypes within a three-stage CAD system for 30 screw variants (3 head shapes and 10 lengths).
- Verified the length sorter with three 20-screw batches per angle, achieving approximately 98% accuracy at 5° and 10°; the 10° setup was approximately 30% faster.
- Evaluated the classifier at approximately 70% in-session and 80% on a 34-screw manual test, defining improvements needed to reach the 97.5% requirement.

Foldable Front-Basket Extension for Toronto Bike Share

| Sep 2025 - Dec 2025

Praxis I | University of Toronto

- Generated 12 carrier concepts across 5 bicycle mounting locations; helped narrow 50 team ideas to 5 candidates using a morph chart, SCAMPER, a measurement matrix, and 4 Pugh charts.
- Processed accelerometer and gyroscope proxy-test data in MATLAB across 4 mounting positions at 5 ± 1 km/h; the selected position recorded the lowest tested acceleration and angular speed (58.7 m/s² and 6.7 rad/s).

Matboard Bridge Structural Optimization and Load Testing

| Nov 2025

CIV102 | University of Toronto | 3-person team

- Used Python train-position simulation and 4 geometry iterations to raise the model-predicted minimum failure load from 240 N to 869.5 N (3.6×); checked selected outputs with 3 hand calculations.
- Fabricated and load-tested the 1.265 m bridge; post-test analysis traced an unexpected failure to a splice/glue joint absent from the analytical model.

Model-Scale Grid-Fin Aerodynamics

| Sep 2023 - Apr 2024

European Schools Science Symposium 2024 | 3-person team

- Co-designed and built a custom 3 m wind tunnel and 18 3D-printed grid-fin variants spanning 2 outlines, 3 hole shapes, and 3 nominal hole sizes.
- Logged more than 180,000 load-cell readings with an HX711, Arduino Uno, and Python-to-CSV pipeline; visualized and compared the test data in R.

EXPERIENCE & LEADERSHIP

IT Officer, Pupils' Committee

| Sep 2024 - Jul 2025

European School of Alicante | Alicante, Spain

- Maintained the committee's official website and delivered IT projects requested by the committee president.

Volunteer

| Jun 2024 - Jul 2024

Alicante Gastronómica Solidaria | Alicante, Spain

- Prepared meals in a community kitchen serving hundreds of people experiencing homelessness and food insecurity.

Youth Basketball Coach

| Jun 2023 - Jul 2023

Fundación Lucentum Alicante | Alicante, Spain

- Designed drills and coached children in a summer camp alongside professional coaches and independently.