

# Jakob Bickley

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Edmonton, AB (Open to relocation)

## Education

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### B.Sc. Mathematics & Finance

*Expected May 2026*

*University of Alberta*

GPA: 3.8 / 4.0

- Awards: Louise McKinney Scholarship (2023), Cathy Allard-Roozen Leadership Award (2023), Thorleif M. Fos-tvedt Scholarship (2024), I.M. May Denham Memorial Scholarship (2025), Dean's Honour Roll (all years)
- Relevant Coursework: Financial Derivatives, Financial Modelling, Risk Management, Statistical Models, Operations Management

## Experience

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### Underwriting Student – SGI (Saskatchewan Government Insurance)

*May–Aug 2025*

- Supported commercial property and auto underwriting teams, liaising with brokers to improve quote accuracy and time.
- Built automated Excel tools to track premiums, quoting success, and broker KPIs cutting manual reporting time by as much as 40%.
- Integrated Python/Selenium automation and approved AI tools (LLMs) for data validation and administrative workflows, improving efficiency and accuracy.

### Teaching Assistant – University of Alberta

*Sep 2024–Present*

- Evaluated 1,200+ assignments weekly using consistent rubrics and quantitative grading methods.
- Delivered problem-solving sessions and identified learning gaps to enhance student outcomes.

### Residence Assistant – University of Alberta

*Aug 2023–May 2025*

- Mentored and supported 45+ residents across academic, personal, and community challenges; awarded RA of the Year (2024–2025) for leadership excellence.
- Designed and executed monthly programming that improved engagement and academic performance in residence.
- Mediated interpersonal conflicts, coordinated with campus safety and housing teams during incidents, and maintained detailed incident reports.
- Promoted inclusion, well-being, and adherence to university standards through proactive communication and restorative practices.

## Projects

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### Markov Bank-Run Risk Model under Rate Shocks – University of Alberta

*In Progress*

- Built a stochastic simulation in R and Python to model bank liquidity under deposit shocks.
- Incorporated Vasicek interest-rate dynamics and Poisson jump processes to estimate default probabilities and losses.
- Assessed how policy interventions and capital buffers influence systemic stability during liquidity runs.

## Technical Skills

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**Excel:** PivotTables, VBA & Macros, Power Query, Financial Modeling

**Python:** Automation (Selenium, APIs), NLP, Pandas, NumPy

**R:** Regression & Statistical Analysis, Visualization (ggplot2, tidyverse)

**Other:** SQL Basics, Microsoft Office, Google Workspace, Bloomberg Terminal