

Justin Kim

j14kim@outlook.com | [LinkedIn](#) | [Website](#) | +1 (647)-972-6342

WORK EXPERIENCE

Co-operators

Guelph, ON

Portfolio Analytics & Insights Analyst

Jan 2025 - Present

- Developed **Automated Investigation Shiny App** for rate review monitoring, building **GLM** models for Non-Renewal, Quotes, and Premium Realization, improving accuracy and data accessibility while increasing process efficiency
- Designed an **A/B test** on renewal notices for auto insurance to evaluate the impact of visible multi-product discounts by randomizing policyholder groups, revealing a 2.1% immediate increase in renewal rates
- Applied **causal inference techniques** (DiD, propensity score matching) in Python on 5M+ auto and home risks, quantifying a 3-7% shift in Loss Development Factors and identifying high-risk customer segments
- Deployed an **LLM-powered pipeline** to interpret KPIs and visuals across two monthly reports, auto-generating commentaries and executive summaries, reducing manual reporting time by 40% and enhancing insight consistency for monthly reporting
- Created **4 interactive reporting tools (Flask, JS)** to deliver real-time, actionable portfolio insights for pricing and analytics teams
- Automated month-end data pipelines** for claims and in-force data using SQL and R, improving data ops efficiency by 25%

Ontario Hose Specialties

Mississauga, ON

Data Scientist

Sep 2024 – Dec 2024

- Revamped **ETL workflows** as part of a company-wide ERP migration using SQL, streamlining legacy production and inventory data integration and reducing pipeline runtime by 60% through optimized query performance
- Executed **A/B tests** on pricing changes and assembly processes, analyzing results to identify methods that attracted new customers
- Produced **sales forecasts** by applying ARIMA to five years of historical data, enabling more effective inventory and demand planning
- Developed **interactive dashboards in Power BI** to visualize key sales, inventory, and production metrics to monitor real-time data

Ernst & Young

Toronto, ON

Staff Accountant II & Staff Accountant I

Jan 2022 – May 2023

- Automated an **income distribution model** for 20+ key clients using **Power Query and VBA**, streamlining large-scale financial calculations and reducing reporting time by 60% across multiple teams
- Visited **10+ FSO client sites** to conduct process walkthroughs, reconciliations, and preparing working papers to support audit process
- Generated **100+ tailored financial summaries** for Non-Resident clients using Excel, providing compensation breakdowns, multi-jurisdictional calculations, and comprehensive foreign tax credit analyses for filings
- Prepared and reviewed **1,400+ personal tax returns** for Canadian and U.S clients, ensuring compliance with tax regulations and timely submission for Residents, cross-border and Non-Resident clients
- Assisted audit teams by identifying key control risks and supporting evidence gathering for **year-end financial statement audits**

Statistics Canada

Toronto, ON

Data Analyst

Apr 2021 – Jul 2021

- Coordinated the **end-to-end data collection and processing** of 50,000+ household responses for the 2021 Canadian national census
- Developed interactive **Tableau dashboards** to monitor real-time census response rates and demographic coverage, enabling targeted outreach strategies and weekly reporting
- Strategized with various teams to design **survey instruments** and optimize data collection procedures, improving response rates

PERSONAL PROJECTS

SAP - Sustainability & Multidimensional Poverty Index

Feb 2025 – Mar 2025

- Placed **2nd** by developing **Multidimensional Poverty Index** with differential weighting for 250+ countries with 87% accuracy by applying both unsupervised ML techniques (**K-Means, PCA**) and supervised models (**Random Forest, Naïve Bayes**)

EY - Predicting the Impact and Severity of Wildfires

Feb 2024 – Mar 2024

- Placed **Top 4 of 50+ teams** by building deep learning models (**LSTM, U-Net**) to accurately predict the onset and progression of wildfires, integrating high-resolution spatial-temporal datasets to enhance predictive capabilities, achieving an F1-score of 0.72

EDUCATION

University of Waterloo

Waterloo, ON

Bachelor of Mathematics – Mathematics + Statistics + Business Administration Major

Graduation Date: 2025

- Relevant Courses:** Computational Statistics & Data Analysis, Databases, Deterministic Operations Research Models, Experimental Design, Forecasting, Investment Sci & Corporate Fin, Management Information System, Stochastic Simulation

SKILLS & INTERESTS

Technical Skills: Python | R | SQL | TensorFlow | VBA | Power Query | Flask | HTML | JavaScript | Excel | MATLAB | Power BI | Tableau

Certifications: Exam MAS-I - CAS | Exam P – SOA | Exam FM – SOA | Azure AI Fundamentals - MS | Azure Fundamentals - MS

Interests: Financial Services | Data Science | Machine Learning | Quantitative Analysis | Strategy | Fitness | Electric Veh | Traveling