

Justin Kim

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CERTIFICATIONS

- Exam MAS-I – *Casualty Actuarial Society (CAS)* *Sitting in Aug 2025*
- Exam Probabilities – *Society of Actuaries (SOA)* *May 2024*
- Exam Financial Mathematics – *Society of Actuaries (SOA)* *Apr 2024*

PROFESSIONAL EXPERIENCE

Co-operators

Guelph, Ontario

Portfolio Analytics & Insights Analyst (formerly Actuarial Analyst)

Jan 2025 - Present

- Built and maintained the **Future of Portfolio Monitoring** dashboard in Power BI using advanced DAX calculations to track merging trends for in-force business, quotes, premium, claims CY and AY, enabling proactive portfolio steering and executive level insights
- 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
- Developed and calibrated **pricing models in Earnix**, incorporating key rating variables to optimize profitability across 3 provinces and competitiveness across Auto and Home product lines
- Deployed an **LLM-powered reporting pipeline** to interpret KPIs and visuals for Non-Renewal Reports, dynamically generating commentaries and summaries, reducing manual reporting time by 40% and enhancing insight consistency for monthly reporting
- Applied **causal analysis** on 5M+ auto, home and commercial risks using Python (Pandas, NumPy, scikit-learn), for various analyses
- Supported **external insurance emissions reporting** aligned with OSFI's initiatives, leveraging SQL to extract, clean and summarize risk and coverage level data for carbon footprint estimation and regulatory submission

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
- 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, Ontario

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

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 **Tableau dashboards** to monitor real-time census response rates and demographic coverage, enabling 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 Security 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

LEADERSHIP AND EXTRACURRICULAR EXPERIENCE

University of Waterloo

Waterloo, Ontario

Bachelor of Mathematics – Mathematics/Business Administration & Statistics

Class of 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

Technicals: Python | R | SQL | VBA | Flask | HTML | JavaScript | Excel | MATLAB | Power BI | Tableau | Earnix | JIRA | Confluence

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