

for all things actuarial

DEC  
2022

# UMAC Newsletter



HOLIDAY POLLS



UMAC W's



DATA SCIENCE -  
WITH GARETT KLUS



UMAC EVENTS



59TH ANNUAL FISH  
DINNER



ASNA SURVIVAL  
GUIDE

## HEY UMAC!

We hope you all had a great fall term!

In this newsletter, we'll take a look back at UMAC events, introduce you to the world of Data Science, celebrate UMAC members' successes, and give you everything you need to prepare for ASNA.

Happy Holidays!

*Ali Ruest*

Your 22-23  
Comm. Chair



@umactuarialclub



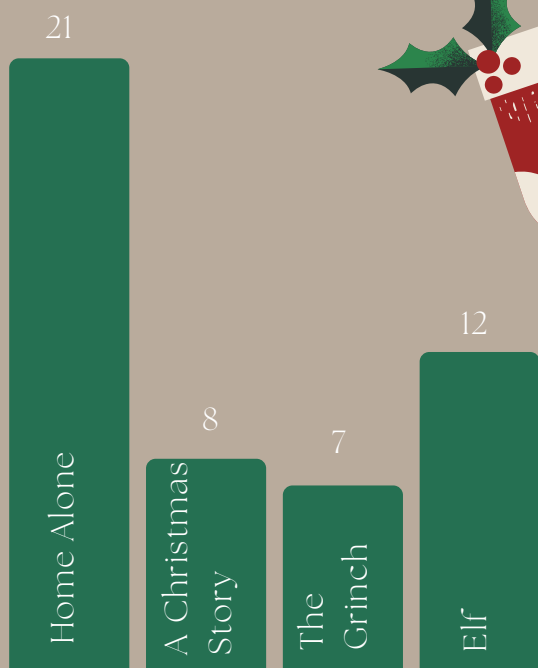
University of Manitoba Actuarial Club



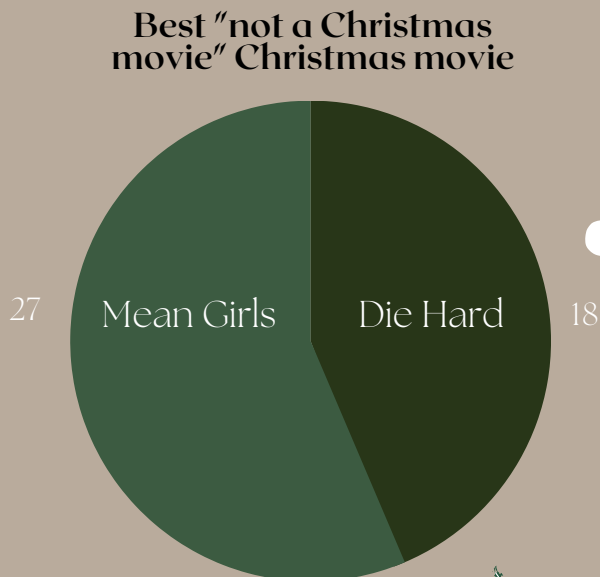
www.umactuary.ca

# HAPPY HOLIDAYS

The votes are in...



Best Christmas movie



Best "not a Christmas movie" Christmas movie

## DEAR SANTA

All I want for Christmas is...

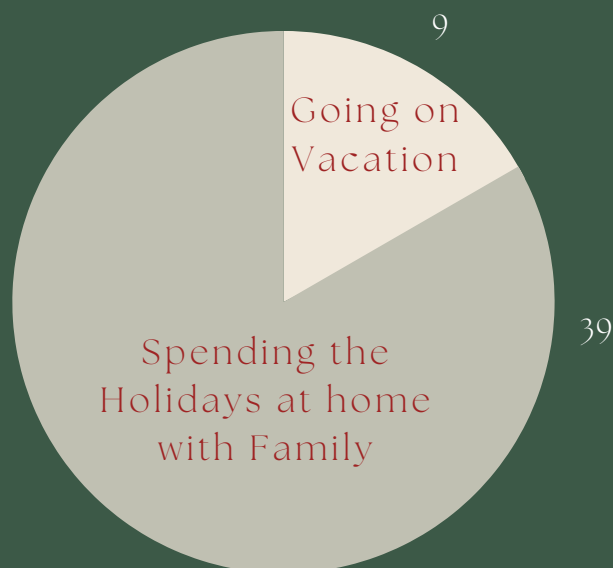
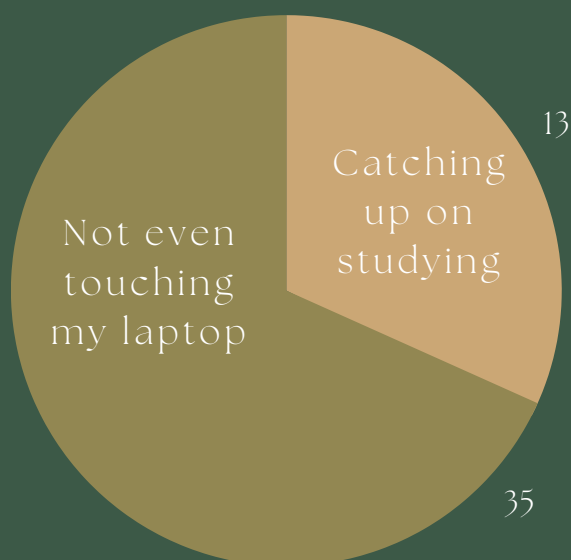
- To pass my actuarial exam
- The invention of a financial Multiview calculator
- A vacation
- UMAC merch
- Some spare time
- A Multiview calculator in every colour

## Favourite Holiday Activity



# HAPPY HOLIDAYS

*What are UMAC members up to this Winter break?*



**When do you put up your Christmas Tree?**



# CONGRATS UMAC!

## Wawanesa

Hannah Thiessen - W  
Alyssa Crymble - W  
Patricia Rodriguez - W  
Melani Fernando - S  
Vishwa Gami - S  
Darren Galura - S  
Shaun Moore - S  
Meg Murray - F  
Alissane Ruest - F  
Rutik Patel - F  
Eric Strick - F

## Wawanesa Life

Conrad Pragnell - S

## Sun Life

Ben Kroeker - W  
Alissane Ruest - S  
Hannah Thiessen - S  
Mylea Hildebrand - S  
Ryan Wiebe - S  
Isaac Turon - S  
Griffon Neufeld - S  
Patricia Rodriguez - F

## Canada Life

Griffon Neufeld - W  
Alex Crupi - S  
Khai Jen Chew - S

## Munich Re

Ishpreet Kaur - S  
Gurkaran Kaur - S

## New York Life

Ben Kroeker - S  
Coveena Kosambi - S

## Oliver Wyman

Priyanka Sharma - S

## MPI

Harlan Kumps - W

## FULL-TIME

### Canada Life

Vianca Gamboa  
Jack Richards

### New York Life

Lynette Rutbeek

### Wawanesa

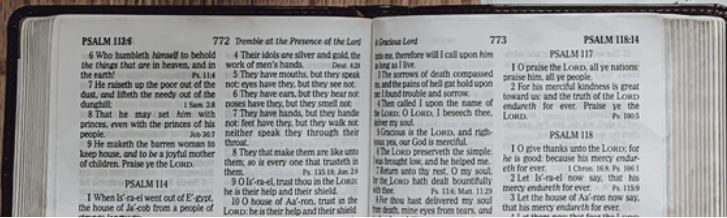
Lexi Lecocq  
Matthew Lee

### Wawanesa Life

Amelie Palaganas  
Luke Alevizos



# Exam Success



## Congrats Fall Exam Passers!

Lynette Rutbeek - FAM-S

Katherine Stobbe - FAM-L

Ashish Kumar - FAM-L

Caroline Mariolle - IFM

Tara Cyr - IFM

Rutik Patel - IFM

Ishpreet Kaur - IFM

Clayton Campbell - FM

Matthew Lehmann - MAS-1

## Coaching Actuaries Success Story

With Alex Crupi

"Coaching Actuaries proved instrumental in my success on Exam P. The *Learn* videos provided helpful shortcuts and exam tips, and *Adapt* helped me discern which sections required the most attention. By using Coaching Actuaries, I was able to pass Exam P with a score of 10 in only two months of studying."

## Coaching Actuaries Discount Codes

UMAC members get exclusive access to CA discount codes!

**Adapt : 25% OFF**

**Adapt+Manual : 50% OFF**

**Adapt+Learn : 75% OFF**

Email us or send us a DM to receive the codes.



# DATA SCIENCE

With Garrett Klus, FCIA, FSA



## What is Data Science?

**Garrett:** Data Science looks and feels a lot like Statistics. You just happen to be using a broader number of approaches to find trends in data or to predict something other than just classical stats models. You can see Data Science everywhere: when Netflix predicts a show you might like, or when Gmail predicts a response to an e-mail for you – there's a Data Science algorithm behind those.

## What do Data Scientists do?

**Garrett:** Data Scientists partner with business experts to build models that do these predictions or find trends. They will sort out what data needs to be used and what software or coding approach to use and then run the models to get results – this part feels a lot like doing multivariable regression. They'll then work with the business to understand the results. Additionally, Data Scientists will work to automate these analyses by getting the code to run in production and tracking the results. In the Netflix example, Data Scientists would have been involved in the beginning, working on multiple different ways to predict what movies a user would want to watch so that they could roll that model out to users. Now that it's rolled out, you'll also have Data Scientists monitoring the results to ensure it's still working, and putting small changes through from time to time to make it better and when new content gets added.

Data Science is a hot topic right now. So what is it exactly? Read on to hear Garrett Klus tell us all about Data Science and his experience as an Actuary in this evolving field.

Garrett leads the Data Science team at IG Wealth Management, a company that offers financial planning and wealth management advice.

In his role, he works on strategic initiatives that leverage AI and automation to improve the quality of planning for clients, recommending products or strategies that will help them meet their financial needs.

Garrett has his FCIA and FSA designations, and an Actuarial Degree from U of M (2011).

## What industries do Data Scientists usually work in?

**Garett:** Everywhere. There are Data Scientists in Insurance, where they can help on projects like improving pricing models or streamlining the underwriting process with predictive models. But there are jobs everywhere – especially in tech and retail where there's lots of data and lots of opportunity to automate processes.



## Do Actuaries work in Data Science roles?

**Garett:** Yes – Actuaries work well in Data Science roles. For one, they check the boxes mentioned before about statistics, business acumen and coding – especially if they've done the PA exam. Beyond that, Actuaries tend to bring two things to the table that other Data Scientists may not: (1) Broad exposure to other modelling approaches through exams, and (2) A strong ability to self-teach – being aware when they don't know something and how to get an answer. The ability to self-teach comes from getting through exams – you can't make it through to be an FCIA if you don't know how to teach yourself new technical skills. This is important as Data Science is a field that is always changing.

## What skills, experience, and education do you need to be a Data Scientist?

**Garett:** Coding, statistics and an understanding business concepts are the key skills a Data Scientist needs. There's no standard educational background for Data Science. Data Scientists have educations that range from a Masters in Engineering to a Certificate from a 3 month 'Data Science bootcamp'. One common experience, though, is having some projects you've done (either through a class, internship or on your own) that leverage machine learning models.

## How do Data Scientists and Actuaries differ?

**Garett:** Data Scientists will spend more time coding – and thinking about code – than Actuaries do. They will write code in Python or R a lot of the time. Also, because the models will get deployed into production where it's Client/user-facing in an automated way, code reviews and managing code changes becomes important.

Actuaries, on the other hand, do a lot more understanding/interpreting the models they use than Data Scientists do. For example, if you're calculating a pricing change, an Actuary will be great at explaining why there's a change and how much is due to mortality experience vs. discount rate changes, etc because they deeply understand the modelling they are doing. A Data Scientist who updates a predictive algorithm to perform better won't always be able to explain as effectively why it's predicting better (and that's not always the point – it might just be enough to demonstrate that it works better).



## How did your role as an Actuary evolve into a Data Science role?

**Garett:** For me it was organic. It helped to be a part of a team that really cares about trying out new things and innovating. I had a colleague recommend a course on Data Science to me back in 2016 which I took and found interesting; around the same time my team was working on some statistical analysis where we thought machine learning approaches might add additional insight. We tried it and it worked, so we added that approach to our 'toolkit' of approaches. From there our team just kept trying new Data Science approaches when it made sense to do so for our work, or we would carve out time to advance what we were doing. Over a year or two we started really working those models into our day-to-day until we formally had enough Data Science work to be call ourselves the Data Science team.



## How does your actuarial knowledge and skills help you as a Data Scientist?

**Garett:** The stats and modelling background from actuarial exams was very helpful for learning Data Science at the outset. Those same skills are also helpful on the job to understand what models are doing and if results are reasonable. In Data Science there isn't usually a 'right answer' but there's definitely wrong ones. Having a deep background with a wide array of modelling approaches is helpful to have an intuition about whether results make sense or not.

Communication skills are also important and used in both fields. Being able to describe a model in business terms or translate a business need into required changes in a model is something I learned to do as an Actuary and I use a lot as a Data Scientist.

# Advice Corner

## Should Actuarial students consider pursuing Data Science?

**Garett:** Yes! I think Data Science is a great field for Actuaries! At this stage, I think the best thing you can do is take a course or two on computer programming, which helps you whether you go into Data Science or not. If you have the opportunity to take an introductory machine learning course, do it as well!

Data Scientist vs. Actuary isn't a 'one or the other' career-path, either. Machine learning is becoming an important tool that Actuaries can leverage to do their work more effectively. Getting some exposure to Data Science and coding in your undergrad will set you up to take on interesting projects in your career – either in a pure Data Science role, or leveraging it as part of an Actuarial role.

## OPPORTUNITIES IN THE DATA INDUSTRY

Here are some ways for students to get started in the Data Industry:

- **Apply to a Data Science Bootcamp or Training Academy.** Companies such as Lighthouse Labs and WeCloudData offer career support and partner with companies on talent acquisition to help you find a placement.
- **Apply to co-op postings** for Data Engineer, Data Scientist, Data Analyst, or Machine Learning Engineer on job sites such as Indeed.

# UMAC EVENTS

## SOA Event



On November 2nd, we had the pleasure of co-hosting an event with the Society of Actuaries! The event included a panel discussion with actuaries established in their field, a presentation from the SOA, and a mingling session.



We had the opportunity to hear about the SOA, its affiliate membership program, student partnership, and more from SOA Past President Jennifer Gillespie. A big thank you to Ben Marshall, SOA Staff Fellow, for hosting the panel discussion and to our panel of actuaries for an engaging and informative discussion all about the actuarial world!

## What Is An Actuary Presentation

How many times have you been asked this question? Many of us have lost count. We host this event to educate students about what actuaries do and why they should consider this field. We had the pleasure to hear from Emily Ducharme and Maria Santiano from Wawanesa Mutual, and from Yi-Fan Lu from Canada Life! A big thank you to our amazing presenters and to Matthew Lehmann for hosting this event.







# Mentorship BBQ





# 59th Annual Fish Dinner



After two long years, it was our pleasure to host UMAC's Annual Fish Dinner once again! The 59th Annual Fish Dinner was a great success. The event brought together students, employers, and faculty members for an evening of networking, scholarship recognition, and great food. We are grateful for the many speakers who shared their wisdom with us. Thank you Karen Lockridge, Dr. Lukas Neville, Dr. Steve Whyard, Samuel Hao, and Tristan Shute.

A special thank you to the many students, faculty members, and industry members for joining us! We hope you had as much fun as we did.

See you next year!

It is UMAC tradition to invite a special guest to the dinner to share a unique perspective of the actuarial industry. This year, we had the pleasure of hearing from Karen Lockridge, FCIA, whose breakthrough contributions to climate action as an actuary have been more than empowering and led her to receive the well-deserved 2021 CIA President's Award!

Karen Lockridge did an incredible job at delivering a meaningful and thought-provoking presentation about climate change and the role of actuaries in this area.





59th Fish Dinner





# YOUR ASNA SURVIVAL GUIDE

Courtesy of Coral McCuen

## MY EXPERIENCE AT ASNA

- 2019 Montreal: Attendee (got a coffee chat with RSA - which eventually lead to an interview and internship in Toronto)
- 2020 Niagara Falls: ASNA Rep/Head Delegate for U of M (1 coffee chat & 4 interviews, lead to my internships at Canada Life & Sun Life)
- 2021 Virtual: VP West
- 2022 Toronto: VP Special Projects

## ADD MORE TO YOUR RESUME

- Consider writing exam P! (I passed the day before ASNA 2019)
- UMAC Highschool Presentations (Contact Matthew if you're interested!)
- UMAC Mentorship program (running both terms)
- Participate in the UMAC (and other) case competition!
- Reach out to Ali if you are interested in writing in the newsletter or want to be featured on IG
- Technical skills development (R & Excel workshops within and outside of UMAC)

## PRE-ASNA TO-DO LIST

- Get your resume ready - prepare both printed and virtual copies for the conference
- Update your LinkedIn with your latest employment, volunteer, achievements, etc.
- RESEARCH the companies attending, create a plan of action for the career fair of priority companies to talk to first
- Prep questions to ask employers
- Prep for potential interviews and coffee chats (you won't have a lot of notice before them!)
- Check out the ASNA website for super helpful resources and past webinars
- Reach out to students who have attended past ASNAs and seek some advice!

## DURING ASNA TO-DO LIST

- Get in line early for the career fair! (Maximize your time)
- Attend as many events as possible - I would recommend attending events particularly of companies you want to work for as it will be an extra networking opportunity and another chance for you to make an impression
- BE PRESENT, involved, and ask questions during the events!
- Have fun! Networking is important but this is also a great opportunity to get to know your peers and explore Toronto. Who knows, maybe one of the peers you meet at ASNA will connect you to a job down the line of maybe this trip will inspire you to move to Toronto.

## AFTER ASNA TO-DO LIST

- Reach out and thank employers you had the opportunity to connect with (interviews, coffee chats, breakfasts, seminars, etc.)
- NOTE: Employers are busy people, so you may not get a response but it's worth a shot! (After my first ASNA, an employer I had a coffee chat with reached out via LinkedIn asking for an interview)

**For more information about  
ASNA, visit their website here!**





THOUGHTS?

Want to write in the newsletter?  
Have an idea to share?  
Let me know!



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