Finance and Insurance

Integrating AI Tools in Risk and Insurance

Summer semester

Institute:	INRIVER
Lecturer:	Leonard Külpp
Assistant:	Leonard Külpp
Weekly hours:	2 SWS
Credits	2 LP/ 3 ECTS
Examination:	Presentation
Prerequisites:	Completion of the course "risk and insurance" in prior semesters or attendance in the current semester is strongly recommended.
Course Material:	Moodle

Further Details

The number of participants is restricted. To apply for this course, please contact kuelpp@lmu.de

Course Description & Main Objectives

This course provides an introduction to various (AI) tools and how they can be used in the insurance related questions. The course will cover various AI tools such as Aleph Alpha, ChatGPT, DALL-E 2, Deepl, Tome, and Wolfram Alpha and how they can be applied to solve insurance problems. The course will also introduce students to Tableau, a powerful data visualization tool, and how to create interactive dashboards and visualizations to analyze insurance data.

Furthermore, the course will cover various topics in insurance including value at risk, elicitation of risk preferences in research and industry, game-theoretic modelling of information asymmetries, Monte-Carlo simulation, financial analysis of insurance companies, cyber risk, and insurability of different risks. The course will provide a practical understanding of these concepts.

The course will also include a revision of probability theory, statistics, and math fundamentals relevant to insurance. This will ensure that students have a solid foundation in these subjects before applying them in the insurance industry.

Throughout the course, students will participate in hands-on exercises and projects to apply their knowledge and gain practical experience using AI tools in insurance scenarios. Overall, this course offers a comprehensive introduction to the utilization of AI tools in insurance problems. Moreover, students will have the opportunity to delve deeper into selected topics of risk and insurance, by applying and extending concepts covered in the related course, "Risk and Insurance.

Literature

Karten, Walter, Nell, Martin, Richter, Andreas und Schiller, Jörg (2018): Risiko und Versicherungstechnik – Eine ökonomische Einführung, Springer Gabler.

Students can download the book free of charge from the following link: https://login.em-edien.ub.uni-muenchen.de/login?url=https://link.springer.com/book/10.1007/978-3-658-06308-5