The AI Enabled Actuary

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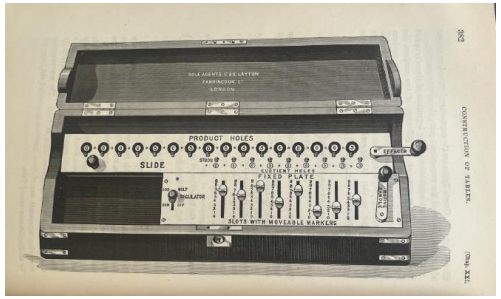
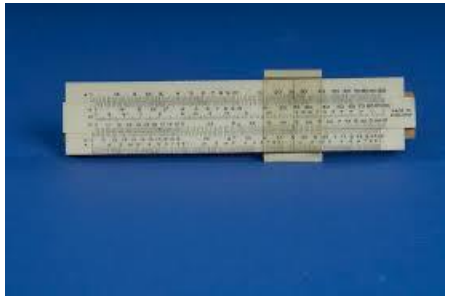
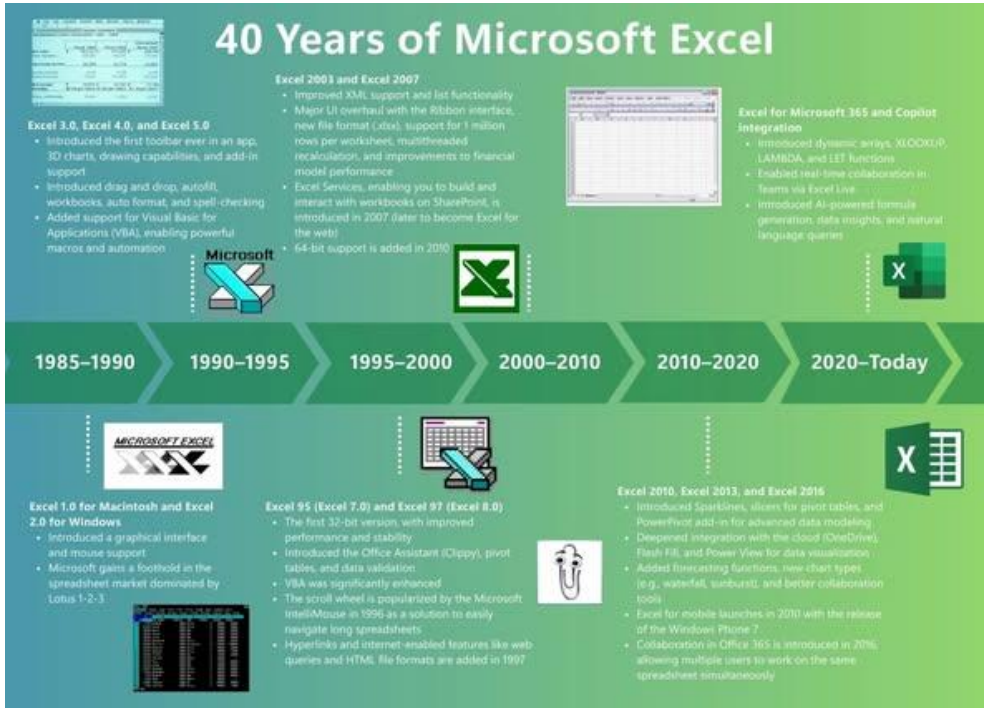
New tools







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How to help all members learn ‘AI’

Pre-qualification

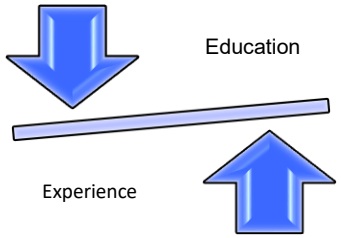
Post-qualification

Structured to meet stated outcomes – what can a new actuary do?

- Tools for well-defined questions
- Introducing real world processes
- Deep dive – domain or service

Unstructured business world: Contextualise education on path to expert

Professional Practice



Industry drives AI needs

Promote to all members?

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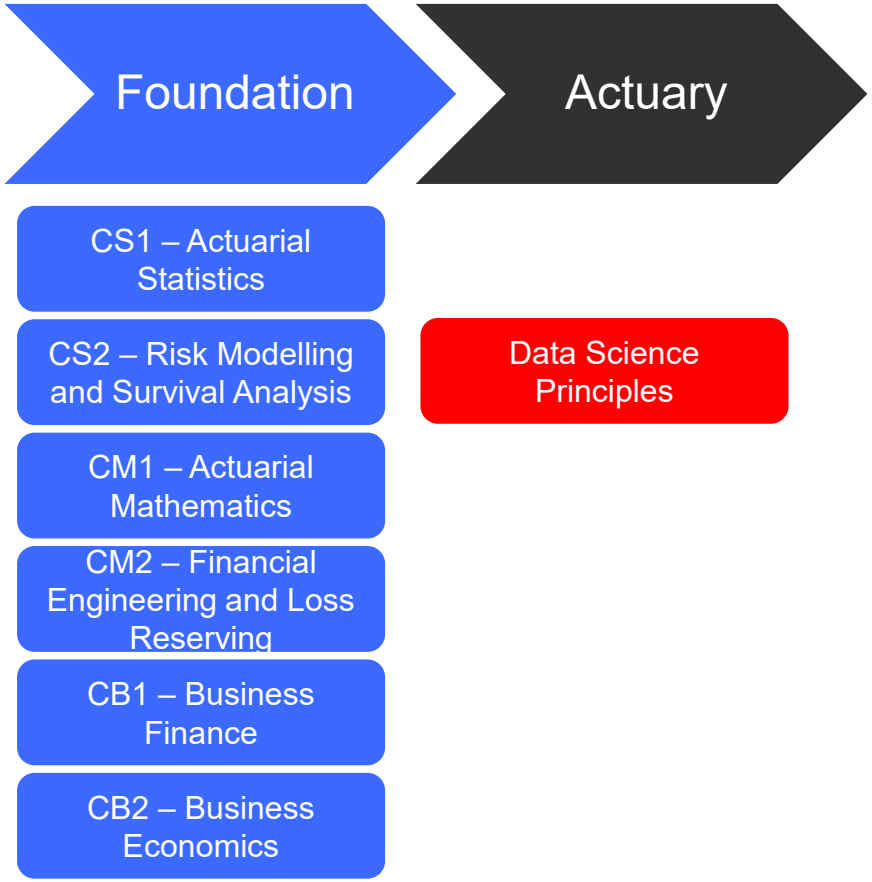
Tools for well-defined questions – Adding more DS



Data Science Principles Outcomes:

Successful students will be able to **contribute** to all stages of a data science project across multiple industries or domains, including:

- explaining where and how their data science work can add value to the business environment and strategy;
- sourcing, interpreting, evaluating and preparing data for modelling;
- using judgement to select appropriate predictive analytic techniques for a given business problem;
- applying predictive analytic techniques to solve regression and classification problems;
- evaluating and comparing performance of different models; and
- communicating findings to a range of audiences.

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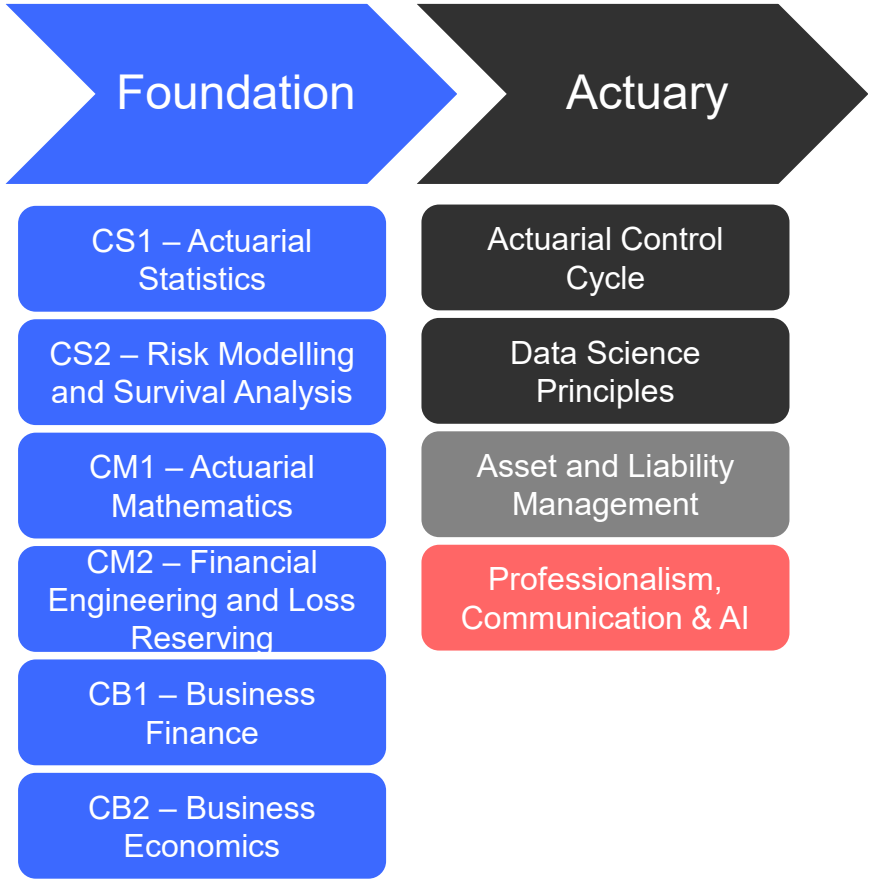
Introducing real-world processes – efficient & ethical Gen AI



Develop effective and professional practices for using GenAI tools

- Explain how GenAI models produce original content
  - Explain how large language models generate text
  - Explain how diffusion models generate images, audio, and video content
- Develop ethical and safe practices for using GenAI tools in professional actuarial contexts
  - Discuss the benefits, limitations, and risks of using GenAI
  - Apply adequate privacy, security, and ethical safeguards when using GenAI tools
  - Apply the Institute's Code of Conduct principles when using GenAI tools
  - Evaluate GenAI outputs by identifying potential biases
- Develop effective approaches for using GenAI tools to solve actuarial business problems
  - Select appropriate GenAI tools for a given context
  - Apply effective techniques for instructing GenAI tools to enhance their outputs
  - Apply techniques for actively engaging with GenAI outputs
  - Evaluate the usefulness of GenAI outputs.

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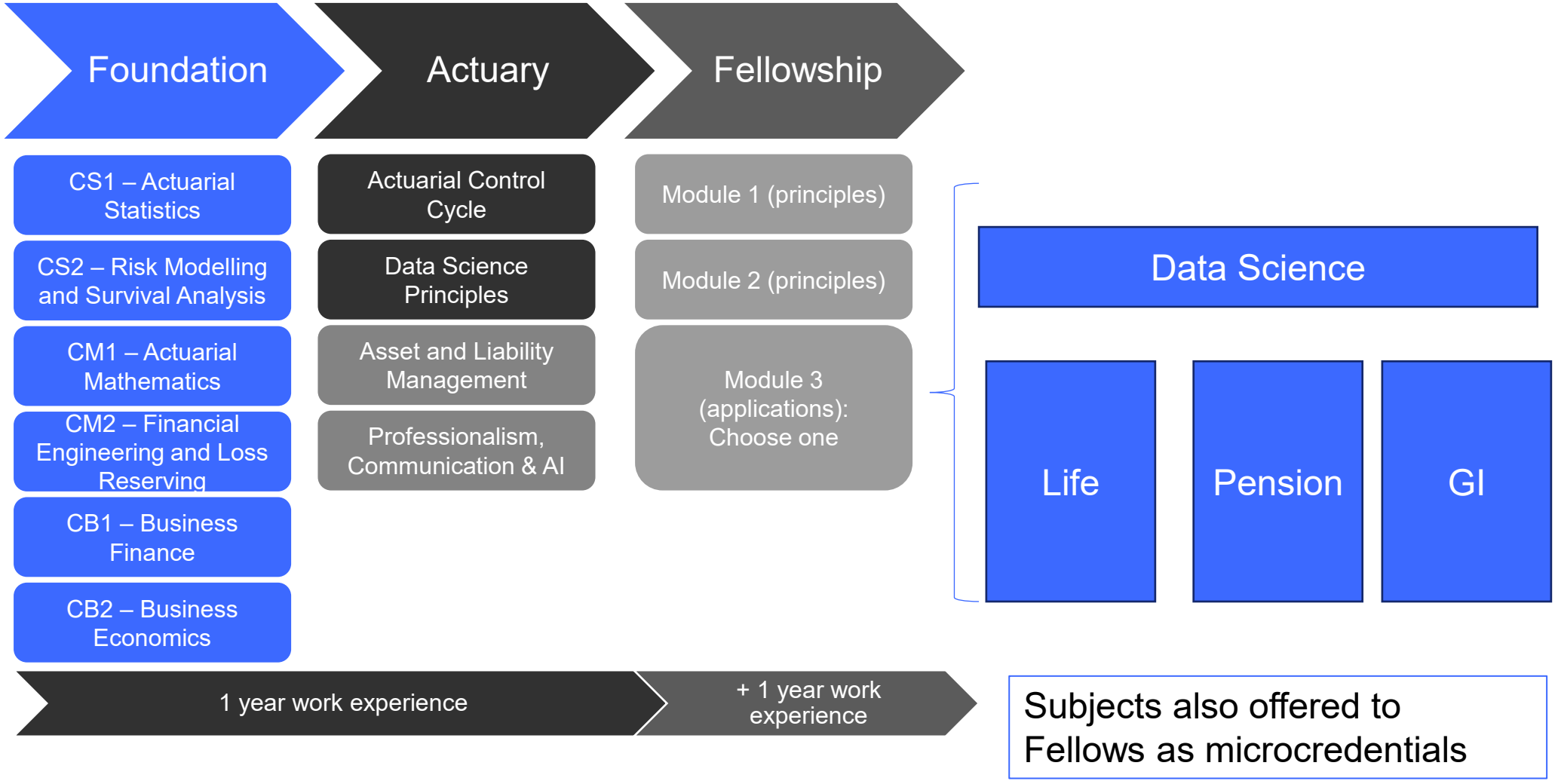
Deep dive: domain or service



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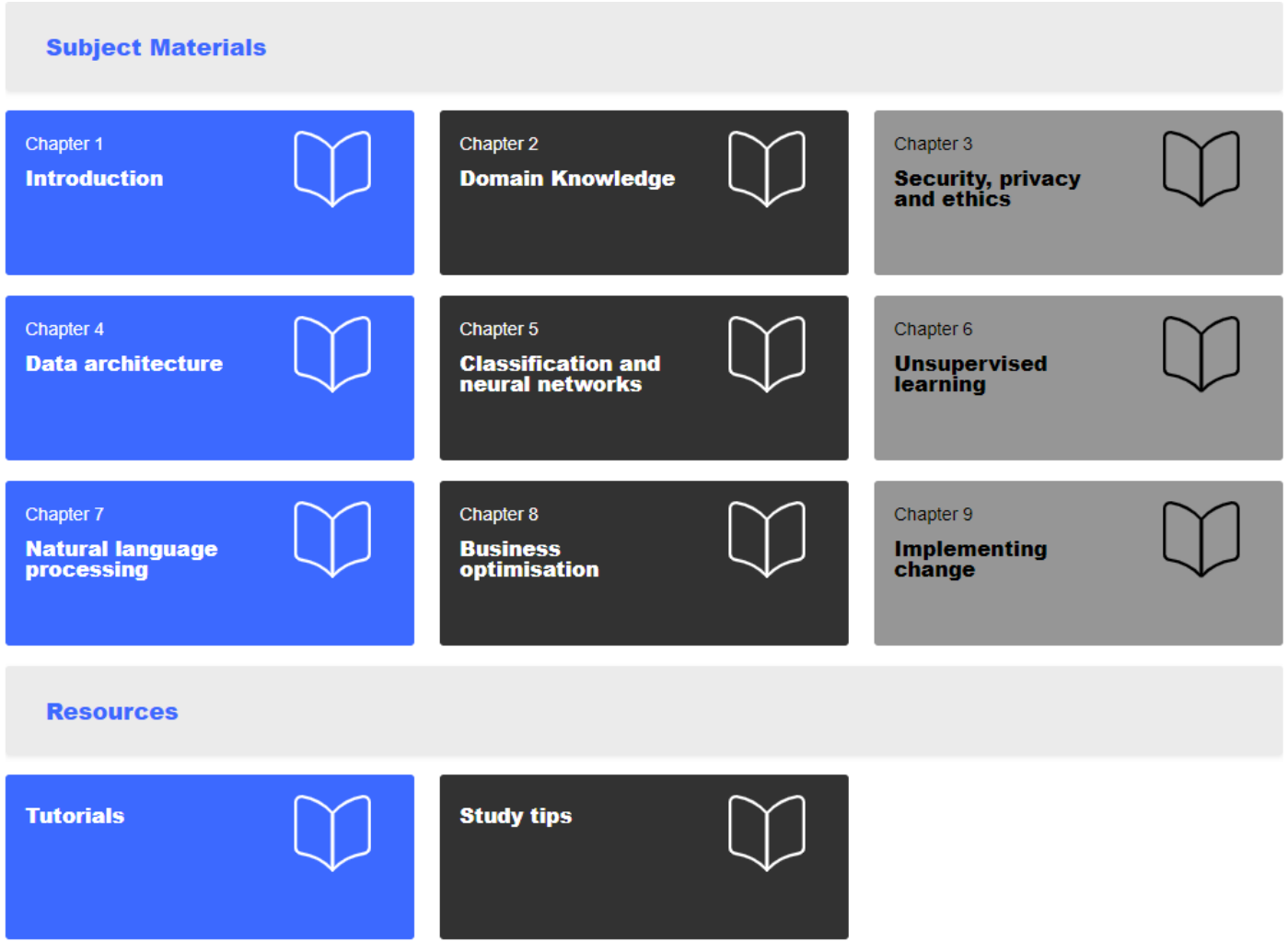
Data Science Applications – Data Science Actuary



Aim:
Apply a range of data science skills together with professional judgment, to solve a variety of complex and challenging business problems.

Outcomes:
- assess the impact of complex business environments on all stages of their data science projects;
- perform data science using a variety of tools and techniques to successfully solve realistic business problems; and
- contribute to the successful implementation of data-driven change in an organisation.

Assessed 50% Exam/50% assignment

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AI education for qualified members

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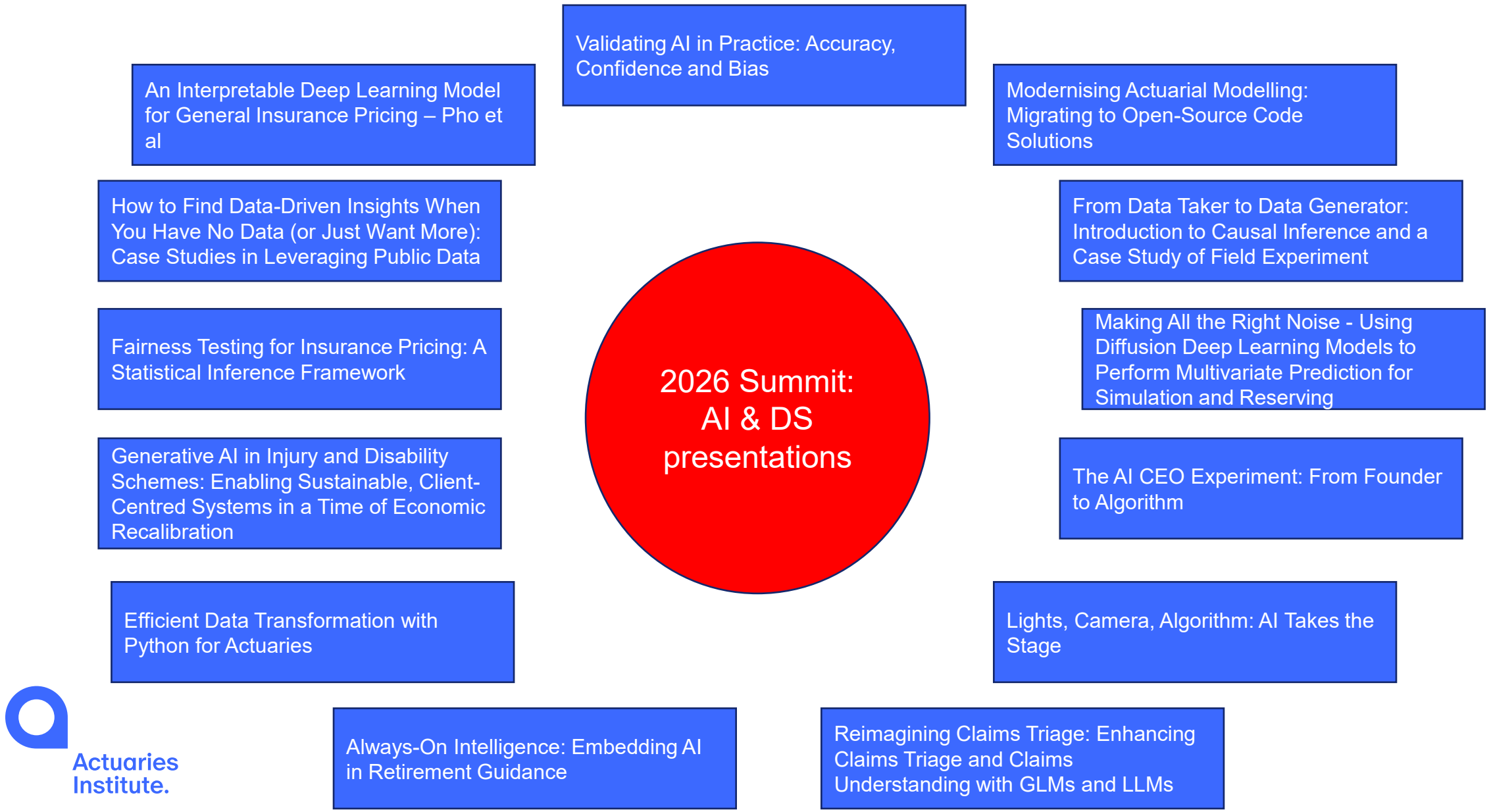
Promotion to qualified members: Actuaries Institute 2026 Summit



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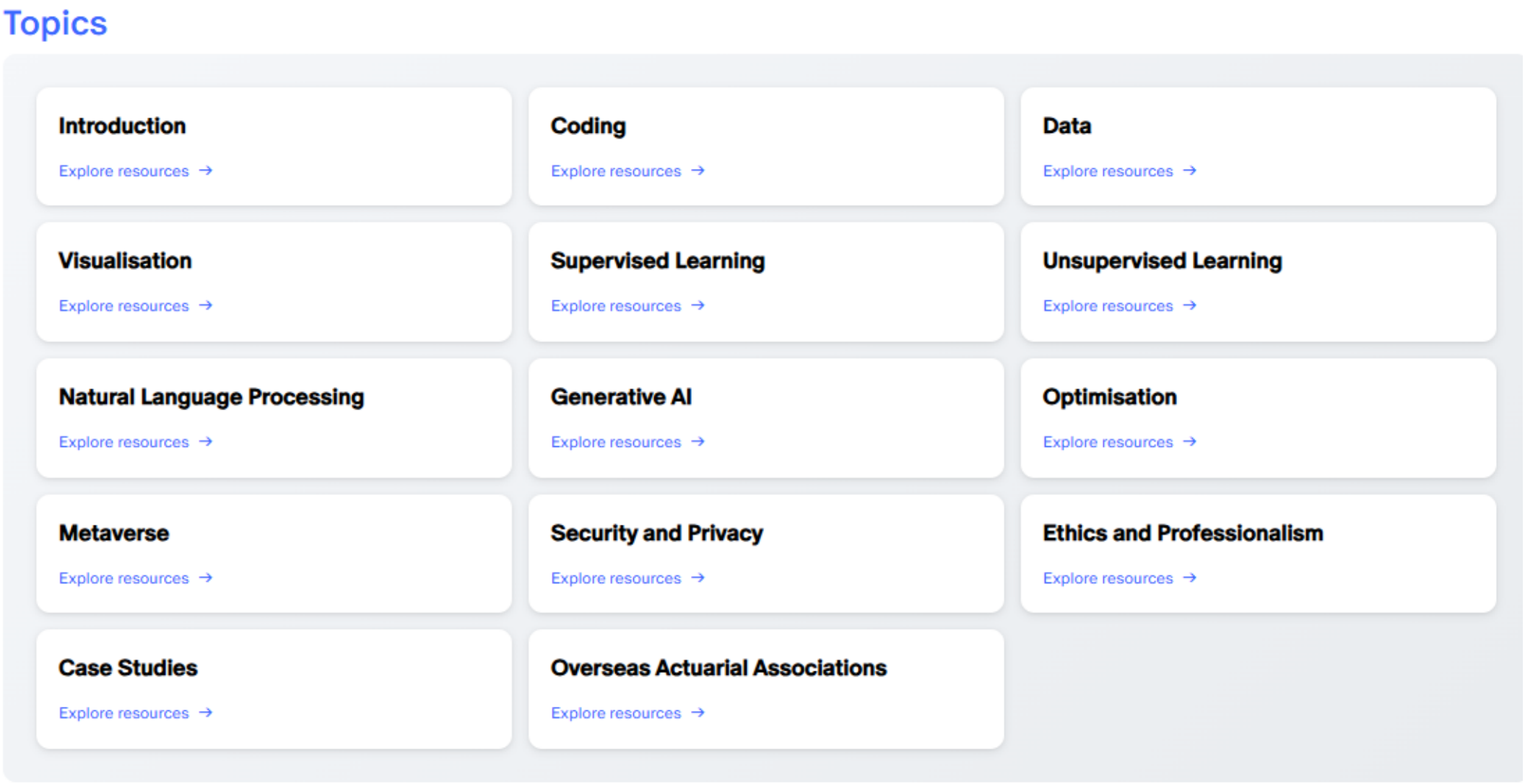
Promotion to qualified members: AI & DS learning resource



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Each topic contains curated material by experts - papers, textbooks, videos, etc. that provide a solid introduction.

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Thank you

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About the Actuaries Institute

The Actuaries Institute (‘Institute’) is the peak professional body for Actuaries in Australia. The Institute provides expert comment on public policy issues where there is uncertainty of future financial outcomes.

Actuaries have a reputation for a high level of technical financial expertise and integrity. They apply their analytical and risk management expertise to allocate resources efficiently, identify and mitigate emerging risks and to help maintain system integrity across multiple segments of the financial and other sectors. This unrivalled expertise enables the profession to comment on a wide range of issues including life, general and health insurance, climate change and sustainability, superannuation and retirement income policy, enterprise risk management and prudential regulation, the digital economy and AI, finance and investment, and wider health issues.

Actuaries use data for good by harnessing the evidence to navigate into the future and make a positive impact. They think deeply about the issues at hand, whether it is advising on commercial strategy, influencing policy, or designing new products. Actuaries are adept at balancing interests of stakeholders, clients and communities. They are called upon to give insight on complex problems, they will look at the full picture. Actuaries analyse the data and model scenarios to form robust and outcome-centred advice.