Community Knowledge Exchange

Technical and Soft Skills Required by Students on Actuarial Placements: How soft skills 'sell' the student

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Actuaries 'measure and manage risk'. Most undergraduate actuary degrees in the UK offer the opportunity for students to complete a work placement as part of their degree. In the workplace, aside from technical skills, actuaries need to demonstrate soft skills such as effective communication, problem solving, decision making, and professionalism to support their personal and professional development. Additionally, actuaries are increasingly working in global teams in emerging markets requiring skills such as effective cross-cultural communication . An analysis of seventeen actuary related work placement job advertisements outlines the technical skills required, and the soft skills necessary to complete the role.

Placement Advertisement Analysis

The companies chosen to analyse the skills needed for an actuarial placement are from a variety of different sectors including banking and financial services, consulting and professional services, insurance and risk management, healthcare and hospitality to get a balanced overview of the skills required.

The **Technical skills** required differ slightly between roles related to actuary and risk, ones in the finance and credit industry, and those in data science and analytics.

Actuary and risk roles require demonstration of:

- Probability and statistical modelling
- Actuarial software and programming (inc. Excel/ VBA, R, Python, SQL)
- Data handling and analysis
- Financial reporting and technical accounting
- Valuation and forecasting

Finance and Credit Industry roles require demonstration of

- Quantitative risk and portfolio analysis
- Financial Modelling and Derivatives

Data Science and Analytics roles require demonstration of

- Coding and scripting
- Data visualisation
- Machine learning and statistics
- Big-Data tools are becoming an emerging requirement

Employers are also looking for exemptions to actuarial exams, projects that showcase the use of Python, R, Excel, SQL that solve real problems, and a willingness to learn new tools and frameworks e.g. Prophet

The **Soft Skills** required by industry did not differ significantly across the different industry sectors. They broadly include:

- Analytical thinking and problem solving
- Communication and collaboration
- Organisation and time management
- Adaptability and willingness to learn depending on changing priorities
- Commercial awareness and understanding of different stakeholders
- Professionalism and ethical responsibility
- Curiosity and initiative

Bridging the Gap

Approximately 70% of assessments on an undergraduate actuary degree are done by examination, particularly in years 1 and 2 of the degree, offering less opportunity for students to demonstrate critical soft skills.

Dr Pik Liew, Programme Director of the BSc Actuarial Science (with a placement year) at London School of Economics and Political Science, confirms a focus on technical exams to meet accreditation requirements, which limits the development of soft skills. A placement year helps fill this gap by giving students real-world experience where they build communication, teamwork, and business acumen. It is a vital addition ensuring graduates are academically strong and professionally prepared for long-term success.

Students participating in a placement year understand the value of soft skill development for future actuary roles; "*Beyond technical experience, I expect to gain a lot of soft skills that are hard to pick up in a classroom. Things like managing my time effectively, adapting to a professional environment, and learning how to build relationships across teams are all areas where I hope to grow*".

Feedback from partner organisation, Accredited Insurance, confirms soft skills are critical for success in actuarial roles. Effective workers are flexible, strong communicators, able to work in different environments and add new perspectives to existing processes. Placement students who can solve problems, manage time effectively and know when to ask for help are particularly valued, as are those who can present complex ideas in a simple way.

Conclusion

- Soft skills are increasingly critical in an industry that is becoming more automated, and students with demonstrable skills developed through an industrial placement stand out.
- Beyond technical expertise, soft skills distinguish candidates, particularly in a competitive field such as actuarial science.
- A placement year provides multiple opportunities to enhance soft skills required by graduate employers.
- Encouraging self-reflection and the development of soft skills before a student's actuary placement will support them to excel on their placement year.

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