

PREDICTIVE ANALYTICS AND FUTURISM (Emerging Topics Community)

(Vote for up to six candidates)

Andrew Dilworth

Dan Kim

Xiaoxu Liu

William Konop

Sandeep T. Patil

Yit Wei Chia

Andrew Dilworth, FSA, MAAA
Director, Actuarial Services
UnitedHealth Group
Appleton, WI

Professional Background

Andrew is a Director of Actuarial Services at UnitedHealth Group with over 12 years of experience in the healthcare industry. Before this role, he was a consulting actuary at Milliman and a data scientist at Walgreens Boots Alliance. He has worked across the commercial, Medicare, and Medicaid lines of business, performing a variety of significant actuarial functions such as pricing, reserving, risk adjustment, forecasting, and more. Throughout his career, he has demonstrated thought leadership by writing and presenting on various industry topics.

Andrew possesses in-depth knowledge of modern software and predictive modeling techniques, which he leverages to improve processes and generate advanced data-driven insights. He is enthusiastic about innovation and is a lifelong learner devoted to continually expanding his skillset (particularly in the areas of predictive analytics, data science, and AI/ML).

He lives with his wife and son in Appleton, WI. His interests outside of work include traveling, weightlifting, and watching the Brewers and Packers.



Society of Actuaries Experience (Section and committee memberships and participation)

- Predictive Analytics exam grader (2019-2020, 2022-present)
- Predictive Analytics exam writer (2020, 2022)
- Section membership: Emerging Topics community, Health section

Other Relevant Volunteer Experience

None

Why are you interested in leading this section?

As the environment in which we operate changes at an increasingly rapid rate (e.g., the explosive growth in data available for analysis, the constant emergence of new software and tools, the rise of artificial intelligence and its associated ethical challenges, etc.), we must strive to ensure actuaries stay on the cutting edge of these technical advances. Failure to do so will result in the diminished relevance of our profession, as those in other roles may be better equipped to manage the demands of the future.

I am interested in serving on the Predictive Analytics and Futurism council because I have successfully integrated various aspects of this topic in my actuarial career. I am eager to serve the SOA and its members by contributing my knowledge, experience, and interest in this critical field.

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Dan Kim, FSA, CERA, MAAA

**Head of Annuity
Talcott Resolution
Hartford, CT**

Professional Background

I am a life actuary who enjoys learning and sharing knowledge with others. Throughout my about 20-year insurance career, I have collaborated with diverse teams to explore complex business problems and develop efficient solutions.

At American Equity, I tackled asset-liability interaction challenges, including Cash Flow Testing, Bermuda financial reporting, and reserve financing. One of my notable contributions was building an actuarial wiki to help colleagues and students effectively find actuarial references.

At WTW, I worked on various projects, such as IFRS17, economic capital, Insurance Capital Standard, asset modeling, economic scenario generation, experience study, and predictive modeling. I also had the opportunity to teach sessions for the SOA's Predictive Analytics Certificate Program and contribute to developing content for the SOA's Ethical & Responsible Use of Data & Predictive Models Certificate Program.

Society of Actuaries Experience (Section and committee memberships and participation)

Member of SOA Sections including Emerging Topics Community.

Volunteered to write and grade the Advanced Topics in Predictive Analytics (ATPA) exam.

Other Relevant Volunteer Experience

None

Why are you interested in leading this section?

With the rapid advancement of AI technology, actuaries and the insurance industry can significantly benefit from its applications. However, it is crucial to understand the limitations and pitfalls to ensure its responsible and effective use.

As part of a personal project, I built AI tools to reference actuarial documents. This experience gave me valuable insights into the challenges, limitations, and considerations surrounding AI implementation. I am eager to share my experiences and learn from others.

By volunteering in this section, I hope to work with fellow actuaries, learn from each other, and help the actuarial community navigate the changing technological environment.



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Xiaoxu Liu, FSA, CERA
Manager
Deloitte Consulting
Philadelphia, PA

Professional Background

Xiaoxu is a Manager within Deloitte's Actuarial and Insurance Solutions group. With over eight years of professional experience, Xiaoxu has been focusing on actuarial modernization for large life insurers, including modeling, model validation, and data warehousing solutions. These efforts are geared towards optimizing risk assessment, valuation, and corporate reporting in compliance with LDTI and IFRS17 frameworks. In recent years, Xiaoxu was leading Python-based model developments, integrating data analytics and technology into the actuarial field. Prior to joining Deloitte, Xiaoxu worked at PwC, where she focused on predictive modeling of credit risk for financial institutions. Xiaoxu is a Fellow of the Society of Actuaries (FSA) and Chartered Enterprise Risk Analyst (CERA).



Society of Actuaries Experience (Section and committee memberships and participation)

Section member of Emerging Topics Community - Modeling Predictive Analytics, Financial Reporting, Reinsurance

Other Relevant Volunteer Experience

Deputy secretary of Ascend Greater Philadelphia
Fall 2020 pre-tester for ILAIPM exam

Why are you interested in leading this section?

Having spent a portion of my career in predictive analytics, I was able to appreciate the power of predictive analytics to transform decision-making and enhance strategic initiatives within the insurance and financial sectors. This role is an opportunity to share my passion and expertise with a community of like-minded professionals. I am looking forward to collaborating and pushing the boundaries of what we can achieve with predictive modeling. I'm also committed to fostering a culture of continuous learning in our work. My aim is to ensure that our section not only keeps up with industry developments but also promotes the topic to more actuaries.

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William Konop, ASA
Manager
Oliver Wyman
Atlanta, Georgia

Professional Background

Life actuary with extensive experience in actuarial transformation, including automation, analytics, cloud architecture, data strategy & visualization, FP&A, and building enterprise transformation plans. Other areas of experience include data & process mapping, legacy system (SAS, mainframe, COBOL, etc.) transformation, group products, and reinsurance. All experience has been with Oliver Wyman, serving mid-sized and large insurers.



Society of Actuaries Experience (Section and committee memberships and participation)

Active member of the Emerging Topics Community.

Other Relevant Volunteer Experience

None

Why are you interested in leading this section?

I want to help younger and aspiring actuaries prepare for the anticipated changes in an evolving actuarial profession, and my work experience is uniquely tailored to the Predictive Analytics and Futurism Section's topics of interest.

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Sandeep T. Patil, FSA, CERA

**Director
KPMG LLP
Atlanta, Georgia**

Professional Background

Sandeep brings over 19 years of experience as a seasoned life actuary and a data scientist, specializing in enterprise risk management, data analytics, actuarial modeling, and actuarial valuation. His professional journey has taken him across diverse markets including the US, EU, Middle East, and India, where he held pivotal roles in Big4 consulting firms and global insurers such as MetLife and Hartford Life. He co-founded an analytics startup that developed CoRIE®, a Cognitive Risk Intelligence Engine to predict policyholder behavior and this platform was subsequently acquired by a leading US-based AI firm. Throughout his career, Sandeep has been dedicated to advancing actuarial practices through innovative approaches such as predictive modeling, cloud computing, low-code technology, and process automation. At KPMG, Sandeep is leading an initiative to introduce Generative AI into actuarial processes to significantly enhance accuracy and efficiency.



Sandeep is a Fellow of the Society of Actuaries, a Chartered Enterprise Risk Analyst, and a Member of American Academy of Actuaries (FSA, CERA, MAAA). Along with a Fellow Actuary, Sandeep is also an Engineer by education that helps him utilize this blended actuarial and technology expertise to bring innovative solutions in actuarial field. He lives in Atlanta, Georgia with his wife and 2 daughters and a day of hiking the mountains in South East US would be his time well spent.

Society of Actuaries Experience (Section and committee memberships and participation)

- Member of India Advisory Task Force (IATF) under SOA's International section (2021-22)
- Member of following sections
 - Emerging Topics Community – Modeling Predictive Analytics,
 - Leadership and development,
 - Financial Reporting,
 - International,
 - Health, and Reinsurance

Other Relevant Volunteer Experience

- Exam grader for SOA's Advanced Topics in Predictive Analytics (ATPA) (2023)
- Exam grader for SOA's Quantitative Finance and Investment (QFI) (2024)

Why are you interested in leading this section?

I am running for a seat in the Predictive Analytics and Futurism (Emerging Topics Community) section of the SOA with a focus on accelerating the adoption of emerging technologies such as AI/Generative AI in actuarial profession. I have extensively worked in building predictive modeling-based solutions along with socializing and embedding other emerging technologies into actuarial processes. By leveraging this experience, I would like to help build the robust educational framework for SOA members around emerging technologies and identify research topics on implementing Generative AI into actuarial processes along with deepening the use of predictive modeling in life actuarial areas. I would like to leverage my deep connects in the technology industry to bring the emerging technologies expertise to the SOA members. I intend to make a substantial impact on this section, which will define how SOA evolves in dynamic insurance business environment.

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Yit Wei Chia, ASA
FWD Technology and Innovation
Kuala Lumpur, Malaysia

