# MICHAEL CHEN, FCAS, MAAA, CSPA

**Senior Consulting Actuary | Des Moines, Iowa**

Michael re-joined Pinnacle in 2023 after three years with a large consulting firm. Michael has been in the property/casualty industry since 2003, focusing on pricing and product development. He has developed homeowners, private passenger auto, farmowners, crop insurance and commercial lines pricing solutions through the design and implementation of advanced predictive models.

Michael has worked extensively on the application of advanced statistical modeling techniques to the insurance process. His experience in predictive analytics applications include rating and underwriting plan design, homeowners by peril analyses, auto vehicle characteristics analyses and scorecard development, territory boundary development and commercial lines pricing. Michael has made numerous presentations on topics relating to predictive analytics, its application to insurance and professionalism.

Michael performs traditional actuarial analyses, including overall rate level indications, rate and rule filings, regulatory support and assessment of company financial experience. He develops risk classification plans through assessment of underwriting profitability, competitive analysis and research of insurance laws. He also performs rate filing reviews for departments of insurance.

He has also designed custom underwriting scorecards, developed claim triage scorecards, peer-reviewed and advised companies on their analytics processes, and performed loss reserving analyses.

★ Qualified to sign statements of actuarial opinion per the American Academy of Actuaries (AAA)

## YEARS OF EXPERIENCE

21

## AREAS OF FOCUS

Personal Lines Ratemaking, Commercial Lines Ratemaking, Predictive Analytics, Pricing/Product Management

## EDUCATION

University of Iowa
B.S. Psychology, 2000
B.A. Sociology, 2000

## CERTIFICATIONS

Casualty Actuarial Society (CAS), Fellow, 2009

AAA, Member, 2007

The CAS Institute, Certified Specialist in Predictive Analytics (CSPA), 2017

SAS® Certified Predictive Modeler Using SAS® Enterprise, April 2017

Miner™ 13, 2017

## CURRENT VOLUNTEERISM

CAS Professionalism Education Working Group, 2012 – Present

## THOUGHT LEADERSHIP HIGHLIGHTS

"Fairness and Risk Based Pricing," Central States Actuarial Forum (CSAF) 2024 Annual Meeting, September 2024

"Potential Unintended Impacts of Bias Mitigation on Other Protected Class Dimensions: A Preview of New CAS Research," CAS Seminar on Reinsurance, June 2024

"Bias Testing Implementation" Workshops, CAS Spring Meeting, May 2024

"Advanced Machine Learning in Real Life," CAS Ratemaking and Product Management (RPM) Seminar, 2023

"Making Sense of Disparate Impact," CAS Annual Meeting, Midwestern Actuarial Forum, Buckeye Actuarial Continuing Education, 2022

## PROFESSIONAL PRESENTATIONS

"Fairness and Risk Based Pricing," Central States Actuarial Forum (CSAF) 2024 Annual Meeting, September 2024

"Potential Unintended Impacts of Bias Mitigation on Other Protected Class Dimensions: A Preview of New CAS Research," CAS Seminar on Reinsurance, June 2024

"Bias Testing Implementation" Workshops, CAS Spring Meeting, May 2024

"99 Problems but Bias Ain't One??" CAS RPM Seminar, March 2024, July 2024

"2024 Update to the Fairness in Insurance Discussion," Pinnacle APEX Webinar, February 2024

"ChatGPT: The Actuarial Perspective," Pinnacle APEX Webinar, September 2023

"Advanced Machine Learning in Real Life," CAS Ratemaking and Product Management Seminar, 2023

"Making Sense of Disparate Impact," CAS Annual Meeting, Midwestern Actuarial Forum, Buckeye Actuarial Continuing Education, 2022

"How to Incorporate Simulated Data into Actuarial Research," Pinnacle APEX Webinar, February 2020

"GLMs, Machine Learning, & More, Oh My!" CAS Annual Meeting, 2018, 2019

"The Actuary's Evolving Role in Today's Dynamic Industry Landscape," Pinnacle APEX Webinar, February 2019

"Lights! Camera! Professionalism!" CAS RPM Seminar, 2017, 2018

"Vehicle History: Insurance Scoring for Your Car," CAS RPM Seminar, 2017, 2018

"Using Predictive Analytics to Understand Your Claims Process," Pinnacle APEX Webinar, February 2017

"Autonomous Vehicles and Their Impact on the Insurance Space," Pinnacle APEX Webinar, December 2016

"State of the UBI Market — Shift to the Connected Car Business Model," Pinnacle APEX Webinar, September 2016

"Introduction to Predictive Analytics," CAS Webinar, December 2015

"Property/Casualty Professionalism Education," CAS Annual Meeting, 2013

"Property/Casualty Experience Studies," Iowa Actuaries Club, 2013 Actuarial Education Event

## PAST VOLUNTEERISM

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|---|---|
| CAS Examination Committee | 2010 – 2018 |
| CAS Learning Enhancement Process Mentors Working Group | 2021 – 2023 |

## EMPLOYMENT HISTORY

Pinnacle Actuarial Resources, Inc., 2023 – Present

Willis Towers Watson, 2020 – 2023

Pinnacle Actuarial Resources, Inc., 2014 – 2020

FBL Financial Group, 2003 – 2014

American Republic Insurance Company, 2001 – 2003