

# Zach Eisenstein

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## PROFESSIONAL SUMMARY

A dynamic Actuary (FCAS, MAAA), consultant and manager with 14+ years of diverse insurance experience across numerous property/casualty lines. Expertise in capital modeling with advanced proficiency in insurance analytics including pricing, reserving and reinsurance. Demonstrated ability to develop and construct novel solutions to enhance strategic decision-making.

## EMPLOYMENT HISTORY

**Aon - Reinsurance Solutions, Chicago, IL**  
*Managing Director, Analytics (May 2020 - Present)*  
*Director, Analytics (Jan 2019 - May 2020)*

*January 2019 – Present*

- Structure, model and optimize traditional and non-traditional reinsurance programs to help clients manage volatility and meet financial objectives.
- Lead analytics and advise U.S. P/C insurer in support of the formation of the largest (to-date) Lloyd's syndicate, serving the personal lines High Net Worth market. Author bespoke R packages to perform actuarial analysis, data visualization and reporting on millions of records.
- Consult to P&C companies on capital modeling framework, risk parameterization, capital allocation, ORSA reports and risk-adjusted performance measurement. Design and lead economic capital modeling updates/reviews for multiline insurers and present results to senior management.
- Architected, implemented and currently maintain Python package to automate reinsurance pricing analyses and simulation; leveraged and customized the tool to holistically model 80+ reinsurance contracts for a global P&C insurer.
- Design and implement innovative methods to communicate the value of reinsurance including holistic modeling, novel visualizations and interactive dashboards.
- Parameterized a predictive model of Directors & Officers Liability claim frequency and severity for US public companies based on financial data and proprietary loss database.
- Conduct annual industry reserve adequacy study; calculate prospective reserve volatility by line of business and company size based on public Schedule P data.

**Assurant Inc, New York, NY**  
*AVP, Modeling Actuary | Office of Risk Management*

*August 2012 – January 2019*  
*August 2016 – January 2019*

- Managed team of two direct reports and oversaw enterprise risk modeling. Quantified the company's key risks and assessed the adequacy of enterprise financial resources (~\$13 billion) to meet policyholder obligations in stress scenarios.
- Presented to senior management and board of directors on risk profile, quantification methods, and advancements including stochastic modeling.
- Developed, maintained and enhanced enterprise stress and scenario testing model. Produced risk quantification, reports and exhibits for annual ORSA submission. Advised international actuaries on ORSA modeling in Europe and Latin America.
- Initiated and directed design and implementation of stochastic economic capital model. Guided decisions on platform, usage, construction, data, governance, controls and reporting.
- Served as a member of multiple senior risk committees. Reported on organization's key risks including underwriting, catastrophe, investment, operational and strategic.

- Created framework and led project to stochastically model business unit earnings and aggregate results. Collaborated with CFO and successfully linked distribution modeling metrics to short term and long term incentive compensation targets.
- Led quarterly update of the central ERM model including: review of baseline and risk modeling results, analysis of group capital position, model refinements, and production of risk dashboards and reports for senior management/Board of Directors.
- Coordinated effort with IT to develop a reporting tool to streamline ERM model input, ensure consistency of baseline projections, and automate output exhibits.
- Developed stochastic model of stock prices to forecast impact of share repurchase plan on shares outstanding for CFO.

- Conducted historical review of material risk events across the enterprise; analyzed relation of actual to modeled impacts.
- Developed educational risk material and tools to help foster a more risk aware organization.
- Supported year-end cash flow testing including development of investment assumptions, running projections, analyzing results, and implementing appropriate revisions.
- Calculated fair value of annuity liabilities classified as FAS 97 investment contracts for 10-Q filing.

- Validated and refined the internal economic capital model for UK insurance entity. Implemented model improvements resulting in a ~\$10 million reduction in required capital.
- Conducted rate reviews on Latin American products and developed rates for new credit insurance products for financial services (Scotia, Banamex, HSBC) and auto clients (BMW).
- Investigated trends in profitability for two largest Puerto Rican clients and presented results internally to business leaders.

- Developed and filed rates for domestic credit protection products for coverages including life, accidental death, disability, and involuntary unemployment.
- Researched, developed and built pricing models for novel products including an insurance-loan hybrid product for Discover Financial Services.
- Analyzed claims experience of Ford unemployment product and reported results internally.

- Performed client reserve reviews using accepted actuarial techniques and provided guidance on reserve adequacy.
- Produced exhibits and statements of actuarial opinion for client captive insurers related to annual financial reporting requirements.
- Analyzed and reported on underwriting experience of credit insurance products.

## EDUCATION

**Bachelors, Applied Physics, minor in Mathematics**  
General Honors

University of Miami | Coral Gables, FL

2008

**Data Science specialization**

Johns Hopkins University on Coursera

2018

**COMPUTER SKILLS**

R, Python, VBA, ReMetrica

**PROFESSIONAL DESIGNATIONS**

Fellow of the Casualty Actuarial Society, 2013

Chartered Enterprise Risk Analyst, 2013

Member of the American Academy of Actuaries, 2013

Member of Phi Beta Kappa Honor Society, 2008