## **KEVIN ZHU, ACAS**

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#### WORK EXPERIENCE

# **Liberty Mutual Insurance** — Property and casualty insurance company *Actuarial Analyst*

Seattle, WA

Oct 2021 - Present

- Realigned medical malpractice, D&O, and E&O reserve classes for more granular unpaid claim analyses, splitting aggregate data into homogeneous subsegments and selecting new payment and reporting patterns
- Corrected internal inconsistencies in claim count and loss data by leveraging alternative data sources and interpolating when data is unavailable, preparing reserving datasets for frequency/severity analyses
- Designed new exhibits to better communicate parametric effects of changes in LDF and ELR assumptions

  \*\*Actuarial Assistant\*\*

  \*\*Jul 2020 Oct 2021\*\*
- Created database containing granular on-leveling, trending, developing, large loss smoothing, and credibility weighting of BOP losses and premiums in SAS for use in rate indications and various ad-hoc analyses
- Automated procedure to quantify effects of updated selections and loss experience on state indications
- Compared various external benchmarks to quantify COVID impact on BOP liability losses, estimating state-level adjustments to indications to produce prospective estimates for post-COVID loss periods
- Developed logic for on-leveling policies from different rating platforms onto a single uniform basis, including consideration for minimum premium, premium modification factors, missing rates, and inaccurate data
- Evaluated rate need for a new BOP product by leveraging profitability insights on similar existing GL products, adjusting data for rate level and book-mix differences to produce credible state-level comparisons

Milliman, Inc. — Property and casualty actuarial consulting *Actuarial Intern* 

San Francisco, CA Jun 2019 - Sep 2019

- Estimated IBNER and pure IBNR hurricane losses for a homeowners insurer using a frequency-severity technique, varying trend assumptions and selected tail factors to create a range of reasonable estimates
- Conducted an actual versus expected loss and ALAE emergence analysis, reconciled updated data to prior reserve reviews, and investigated accident quarters with higher-than-expected emergence
- Simulated a market basket of homeowners policies and built a rater in SAS to compare average premium by rating variable across competitors, creating accompanying exhibits for the Department of Insurance

Capital Insurance Group — Property and casualty insurance company *Actuarial Intern* 

Monterey, CA Jun 2018 - Sep 2018

- Completed quarterly dwelling fire rate indication and inland marine reserve review, using actuarial judgment to select trends, development factors, ultimate losses, and indicated rate changes
- Modeled homeowners pure premium using a GLM in Python, identifying high-risk characteristics and conducting cost-benefit analyses on installing water loss prevention devices in select homes
- Built a user-friendly BOP renewal tool in Tableau for underwriters and management to easily retrieve specific policy details and summaries of segmented data

### **EDUCATION**

#### University of California, Los Angeles

Los Angeles, CA

B.S. Mathematics/Economics; Specialization in Computing; Minor in Accounting

Sep 2016 - Jun 2020

- Graduated *summa cum laude* (GPA: 4.00/4.00), Elected Phi Beta Kappa, Received Outstanding Mathematics / Economics Student Award (given to five top-ranked students based on faculty recommendations)
- Served as President of Bruin Actuarial Society, UCLA's premier organization for student actuaries
- Competed in the California Actuarial League Case Competition, winning Best Solution in the Health and Benefits and Property and Casualty tracks (2018) and Best Individual Presenter in the Retirement track (2017)

#### ADDITIONAL

- Computer Languages: SAS, SQL, R, Python, VBA
- Other Tools: Advanced Microsoft Excel, Introductory Microsoft Access