

## KEVIN ZHU, FCAS

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### WORK EXPERIENCE

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#### Farmers Insurance

Woodland Hills, CA (*Remote*)

##### *Assistant Actuary ACAS, Business Insurance*

*Aug 2022 – Present*

- Estimated rate indication for a transportation network company accounting for ~\$1B in gross WP by state, coverage, and period, adjusting loss data and trend selections for coverage changes and COVID impacts
- Designed a policy/claim level BOP database for use in indications, including allocation of ultimate losses and claim counts using record-level Bornhuetter-Ferguson, and calculation of earned location years
- Supported data extracts and transformations (focusing on loss segmentation and development by peril) for a BOP pure premium XGBoost model and facilitated alignment with actuarial rate indications
- Prepared rate support exhibits for TNC and BOP rate filings and defended proposals against DOI objections
- Modeled pure premium in using a GLM in Python to refresh building age and amount of insurance curves

#### Liberty Mutual Insurance

Seattle, WA

##### *Actuarial Analyst, Specialty Reserving*

*Feb 2022 – Aug 2022*

- Realigned medical malpractice, D&O, and E&O reserve classes for granular unpaid claim analyses by splitting aggregate data, correcting internal inconsistencies, and selecting new payment and reporting patterns
- Refined mappings between pricing segments and reserve classes for use in development of expected loss ratios, driving alignment of rate and trend assumptions across multiple teams

##### *Actuarial Assistant, Business Lines Indications*

*Jul 2020 – Feb 2022*

- Created database containing granular on-leveling, trending, developing, large loss smoothing, and credibility weighting of BOP losses and premiums in SAS for rate indications and various ad-hoc analyses
- Automated procedure to quantify effects of changes in loss experience, rate level, LDF/trend selections, CAT load, and expense/profit provisions on state indications, reducing refresh time from 1 week to 15 minutes
- 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
- 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

San Francisco, CA

##### *Actuarial Intern*

*Jun 2019 – Sep 2019*

- Projected 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
- 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
- Conducted an AvE loss emergence analysis and investigated quarters with higher-than-expected emergence

#### Capital Insurance Group

Monterey, CA

##### *Actuarial Intern*

*Jun 2018 – Sep 2018*

- Identified high-risk homes and conducted cost-benefit analyses on installing water loss prevention devices
- Built a BOP renewal tool in Tableau to display both specific policy details and summaries of segmented data

### EDUCATION

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#### 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

### ADDITIONAL

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- Computer Languages and Tools: SQL, Python, R, SAS, VBA, Microsoft Excel, Power BI, ResQ