

KEVIN ZHU, FCAS

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WORK EXPERIENCE

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
- Built a Tweedie pure premium 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

Capital Insurance Group

Monterey, CA

Actuarial Intern

Jun 2018 – Sep 2018

- 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 BOP renewal tool in Tableau to display both 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

ADDITIONAL

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