

KEVIN ZHU, FCAS

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WORK EXPERIENCE

Farmers Insurance

Woodland Hills, CA (*Remote*)

Associate Actuary FCAS, Business Insurance

Aug 2023 – Present

- Led the development of proprietary rating models for a new BOP product, collaborating with stakeholders in underwriting, product, and data science to refine assumptions, scope, and appropriate feature engineering
- Trained and mentored two new team members and one direct report; peer reviewed and provided constructive feedback on contributions to data extraction, actuarial indication, and predictive modeling processes
- Built a new rate indication process for a transportation network company accounting for \$1B in gross premium, formulated internal bidding strategy, and led rate negotiations with the insured's actuarial team
- Modeled pure premium using a GLM in Python to update building age curves

Assistant Actuary ACAS, Business Insurance

Aug 2022 – Aug 2023

- Designed a policy/claim level BOP database for use in indications and rate revisions, including allocation of ultimate losses and claim counts by peril using record-level Bornhuetter-Ferguson
- 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

Liberty Mutual Insurance

Seattle, WA

Actuarial Analyst, Specialty Reserving

Feb 2022 – Aug 2022

- Realigned medical malpractice, D&O, and E&O reserve classes for more 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 unpaid hurricane losses for a homeowners insurer using frequency-severity techniques
- Simulated a market basket of homeowners policies to compare competitors' premium by rating variable

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

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
- Served as President of Bruin Actuarial Society, UCLA's premier organization for student actuaries

ADDITIONAL

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