

# KEVIN ZHU, FCAS

Brooklyn, NY | kevinzhu98@gmail.com | (510) 706-8515

## Work Experience

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### 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

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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
- 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, SAS, Microsoft Excel, VBA, Power BI, Git, ResQ