

# Jared L Bailey, MBA CPCU ARe

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## PROFESSIONAL EXPERIENCE

### Thrivent – Chicago, IL (Remote)

Jan 2023 to Present

*Senior Data Scientist, Commercial Analytics and Underwriting Innovation*

- Cross functional team built from scratch in January 2023 to modernize life underwriting processes
- Role involves model building, metric driver investigation, automation, and bias testing among other tasks

### Kemper – Chicago, IL

Feb 2021 to Dec 2022

*Catastrophe Management Lead, Catastrophe Modeling and Reinsurance*

- Redesigned catastrophe management function for the organization, setting and garnering senior management approval for long-term vision, projects, actions across teams, and entrepreneurial focus. Kemper was without a catastrophe modeler for several months prior to my arrival. We seized the opportunity to reshape this position and associated work.
- Conceptualized and coordinated Kemper's first Wildfire (2021) and Severe Convective Storm (2022) Forums, drawing on insights across Kemper teams and broker analytics. Department-wide actions following resulted in several rounds of inspections to non-renew the worst priced homes saving over \$2m, a new approach to identifying regions for growth using notional risks, and improved underwriting guidelines.
- Provided hurricane and severe convective storm rate relativity recommendations across multiples states for new and existing products using vendor models, GLMs in R, an artificial neural network in Python, and Tableau dashboards for end user interactivity. Updated rate relativities favored several home characteristics which were previously poorly priced and lacking adequate representation in Kemper's book of business.
- Developed Python GUI application to inspect data files for errors. The deep focus on data accuracy resulted in correction to dozens of longstanding data issues with home characteristics, line of business designations, and external form reporting with reinsurance savings impact of \$800k per year.
- Wrote Python code to automate data processes, call APIs providing predicted catastrophe loss on new business, create notional risks for modeling, pull bulk claims data from PDFs, and declutter frequent and immaterial vendor emails for multiple users. Provided regular Python and R training across teams, as well as led Kemper's 2021 & 2022 Advent of Code competition.

### Earnix – Newton, MA

Jun 2020 to Feb 2021

*Professional Services Consultant, Americas - Insurance*

- Provided pre-sales assistance through in-depth Price-It software demonstration
- Served as workstream lead on software implementation design for Earnix's largest customer to date
- Designed and presented the first US personal and commercial auto demonstrations of Earnix's new Personalize-It product
- Wrote software Implementation Plan template for US customers
- Led software evaluations using potential client insurance data over multiple weeks
- Built predictive attrition model with client data to showcase software capabilities
- Automated internal Price-It software data and model build using Python, saving over an hour on each software evaluation preparation
- Developed ROI calculator using R Shiny to assist sales team

### Aon Benfield – Chicago, IL

Jan 2018 to Jun 2020

*Senior Actuarial Analyst, Predictive Analytics*

- Produced hurricane and other wind underwriting guidance as part of Aon's Cat Score team
- Modeled, evaluated, and strengthened the Cat Score notional grid for the AIR, IF, and RMS models. This resulted in corrections to several long-standing issues in the notional grids, as well as a saved project previously owned by three co-workers.

- Formalized, automated, and implemented department procedure for Cat Score execution by Aon's catastrophe modelers. Previous errors caused client losses in excess of \$10m. No losses or errors were reported after implementation.
- Completed significant model testing and formalized department procedure (modeling and reinsurance allocation) of Aon's internal catastrophe model, Impact Forecasting. This led to an extended opportunity to work half time with the Impact Forecasting team to prepare for their first model submission to the Florida Commission on Hurricane Loss Projection Methodology.
- Created hurricane and flood rating plans using GLMs in R, coupled with Tableau dashboards
- Instructed multi-day Fundamentals of Reinsurance training course for clients and Aon employees, including: Overview, Excess of Loss, and Quota Share
- Evaluated client misuse of secondary modifiers for catastrophe modeling using k-medoids
- Managed Catastrophe Management SharePoint team, administering several large internal SharePoint sites. Other global teams frequently requested similar SharePoint builds.

## **GEICO – Chevy Chase, MD**

**Jan 2017 to Jan 2018**

### *Actuarial Assistant, Pricing*

- Constructed rate indications and proposed rate changes as part of GEICO's pricing department
- Produced automobile and umbrella rate filing packages for Southeastern states
- Designed a k-means solution to territory grouping using Excel Solver
- Discovered and assisted in correction of multiple major and minor bugs in data and code, including those found in GEICO's use of IBM Watson
- Provided catastrophe modeling recommendations to the Florida and Texas teams
- Managed the Pricing SharePoint site

## **Aon Benfield – Chicago, IL**

**Jun 2015 to Jan 2017**

### *Senior Catastrophe Analyst, Catastrophe Modeling*

- Modeled losses and produced catastrophe loss allocations for personal, commercial, and automobile exposures using RMS RiskLink and AIR Touchstone/Catradar
- Created comprehensive modeling analytics presentations for clients using SQL, Excel, and PowerPoint
- Developed office-wide Excel/VBA solutions to increase efficiency and provide creative data visualizations
- Managed and redesigned the SharePoint site for the US catastrophe modeling department as SharePoint team leader

## **Small Business Development Center – Jacksonville, FL**

**Aug 2010 to Jun 2015**

### *Business Consultant*

- Developed Excel/VBA tool and video manual to assist international trade consultants in foreign market selection using relevant data. Received the state-wide Innovative Service and Best Practice of the Year Award and mentioned by name in the US Congressional Record by Congressman Ander Crenshaw
- Consulted with nearly 500 small businesses focusing on: financial analysis, website development, internet marketing, pricing strategies, and financial statement projections
- Created the state standard for financial analysis and projections, with accompanying presentations
- Developed and presented dozens of multi-hour business courses to current and prospective business owners
- Taught graduate and undergraduate business classes as a guest lecturer and substitute teacher at the University of North Florida
- Promoted from Graduate Assistant to Consultant upon graduation from the UNF MBA program

## **EXAMS & CERTIFICATIONS**

- CAS – P, FM, MFE, MAS I, MAS II, OC1, OC2 (Ongoing)
- The Institutes – CPCU (2021), ARe (2019)
- ETS MBA Major Field Test (ranking test for MBA graduates) – Top 1% of MBA graduates nationwide

## **EDUCATION**

- Natural Language Processing – Stanford Professional Program (2022)
- AI & Machine Learning Postgraduate Program – University of Texas at Austin (2021)
  - 1st of 31 teams in machine learning accuracy competition (72 hours, max team size of 3)
  - Project based application of machine learning using Python
  - Linear and logistic models, random forest, boosting, artificial neural network, machine vision, natural language processing, clustering
- MBA – University of North Florida, 3.8 GPA (2012)
- BA – University of Florida, 3.6 GPA (2007)
  - AA – UF Honors Program (2006)

## **TECHNICAL SKILLS**

- Coding Languages and Dashboards
  - Python, R, SQL including dynamic SQL using stored procedures, Shiny, Tableau, SAS, Java
- Catastrophe Models
  - AIR, IF, RMS
- Microsoft Applications
  - Excel including Macros and VBA, Access, PowerPoint, SharePoint, Word