

Yash Bhatt (AIA)

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EDUCATION

CS1, CS2, CM1, CM2, CB1, CB2, CB3, CP1, CP2, CP3	Institute and Faculty of Actuaries (Associate of Institute of Actuaries)	Pass
B.Sc.(H) Mathematics	Kirori Mal College, University of Delhi	7.4/10
Senior Secondary Education (CBSE)	Rajkiya Pratibha Vikas Vidyalaya	95%

WORK EXPERIENCE

Independent Consulting

Pricing and Product Development Consultant

Remote

January 2025 – Present

Parametric Insurance Product Development:

- Performed design and pricing of a parametric insurance product for multiple perils such as heat, rain, storm and pollution for south-east asia, from trigger definition to payout structure and rating logic.
- Building Python-based prototypes to test product performance under historical and stressed climate scenarios and support go-to-market decisions.
- Performed burn cost, AAL and stress testing analysis with different loading to project future payouts.
- Drafting policy document and payout terms and conditions.

Reinsurance Pricing:

- Priced Term Life and Credit Life products through experience analysis and basis development.
- Maintained and tuned AXIS models for reinsurance pricing and sensitivity analysis of basis.
- Built and calibrated mortality curves using actuarial laws and GLM spline models.
- Analyzed mortality improvement (IIB + census data) to refine long-term pricing and reinsurance basis.
- Used predictive models (linear, logistic, XGBoost) to assess risk relativities and flag high-risk lives. (client: RGA)

Milliman

Actuarial Data Scientist

Remote

March 2023 – December 2024

- Built a VM-21 calculation engine and a suite of cashflow, hedging, and risk-measurement models on databricks/PySpark, delivering materially faster runs than the legacy Excel process while formally assessing model appropriateness, limitations, and associated model risks.
- Designed and operated end-to-end PySpark and Delta Lake pipelines on Databricks for annuity experience datasets exceeding one billion records and one trillion USD in fund value, reducing model runtime by 40% through Spark SQL optimization, workload-specific cluster configuration, and Delta Lake version control, also lowering overall cloud spend.
- Integrated MLflow on databricks for model versioning and tracking predictive models' performance over time.
- Developed and implemented mathematical models for cashflow modelling, hedging, and risk measurement on databricks.
- Assessed the appropriateness of quantitative models, identified their limitations, and monitored associated model risks.
- Collaborated with MG ALFA and Integrate (Milliman proprietary software) team on actuarial model transition project.
- Developed custom predictive models for FIA and MYGA products during a high interest-rate and elevated-lapse environment, applying data bucketing and both supervised and unsupervised machine-learning techniques for pricing, lapse analysis, and customer segmentation.
- Led and expanded a team of actuarial data analysts, creating training materials and onboarding new team members.

Actuarial Data Analyst

September 2020 – March 2023

- Built and maintained variable annuity experience-study pipelines in SQL Server and R, designing seriatim-data actuarial logic to calculate risk exposures for life insurance products and ensure data quality for downstream pricing team.
- Developed predictive models in R to analyse policyholder behaviour, lapse, and benefit-utilisation patterns, and led a Databricks proof-of-concept using sparkR and sparklyR that delivered scalable big-data pipelines with materially improved runtime efficiency over the legacy R-only approach.
- Contributed to a micro-insurance MVP for the Vietnam market, integrating remittance-based premium collection.

Actuarial Intern

March 2020 – September 2020

- Build cashflow models for different life insurance products available in India.
- Document the transfer of funds, units and other policy details for transfer of legacy policy admin system to a new system.

Skills

- Spark SQL, T-SQL, MySQL
- Python, R programming
- Databricks
- Power BI
- GGY-AXIS, MG-ALFA
- Multiple machine learning algorithms
- Azure cloud platform
- Project Management