Introducing a New Framework for Risk Modeling

We, Yulia Yulish-Nechay and Ben Zickel, have developed **PredicTri**, a tool designed to enhance the P&C reserving and pricing process using advanced machine learning. Our Bayesian-based framework enhances accuracy, consistency, transparency, and automation, empowering better-informed decisions.

About Us

Yulia (16 years actuarial experience) and Ben (25 years in algorithm development and productization) have combined their skills to advance risk modeling. Our mission is to equip organizations with actionable insights that support data-driven decision-making.

Why This Matters

Insurance risk models are essential for managing uncertainty. However, current tools rely on outdated and manual processes, leading to inefficiencies and missed opportunities.

Common Challenges include inconsistent methods, simplistic models that miss key risks and portfolio complexity, costly manual processes, and a lack of transparency in assumptions.

Our Solution

Our framework leverages cutting-edge Bayesian modeling to:

- Automate Processes: Reduce manual effort.
- Standardize Risk Analysis: Enable consistent model comparisons.
- Improve Accuracy: Incorporate key factors like correlations, trends, and outliers.
- **Generate complete outputs** cash flows, percentiles, and regulator-aligned metrics.

How It Works

Built on well-known techniques like the Chain Ladder, our framework integrates advanced features to address current challenges. Each model's performance is validated using machine learning methods, and the best-performing model is selected. The framework provides transparency by showing how different factors influence the results, making outputs clear and actionable.

Why It's Better

This approach transforms reserving into a consistent, automated process that's easy to understand and explain. PredicTri complements traditional methods by providing an objective, data-driven second view.

Want to Learn More?

Feel free to reach out to us at **yuliaey@gmail.com** or **benzickel@gmail.com** to arrange a conversation or meeting. We provide actuarial and implementation support to help ensure the solution fits your reserving processes and goals.

Connect with us on LinkedIn: Yulia Yulish-Nechay, Ben Zickel.