



**SOCIETY OF
ACTUARIES**

Article from

Predictive Analytics and Futurism

August 2019

Issue 21

Come Visit Philadelphia This September

By Dave Snell

Throughout this issue, you have seen articles emphasizing the need for actuaries to grow additional skill sets in order to compete with other professionals entering and succeeding in areas formerly dominated by actuaries. Some of them come armed with various AI machine learning techniques and tools that are more cost- or time-effective than our traditional actuarial tools.

The amount of self-education needed now to keep (or get) your edge is daunting. What if you could jump-start that learning curve with two days of training specifically aimed at actuaries—and have each unit of training taught by somebody who is expert in, and actively using, the particular technique in a financial risk environment?

Once again, the Predictive Analytics and Futurism (PAF) Section has prepared such a great learning and networking opportunity

for you. This September, the Society of Actuaries 2019 Predictive Analytics Symposium will be in downtown Philadelphia. The symposium will start promptly at 7 a.m. September 19, continue through 5:35 p.m., and restart the following morning with more sessions until 12:15 p.m. If you decide to participate in the PAF Hack-a-Thon, it continues even longer!

HACK-A-THON

For those looking for some truly hands-on experience, or those looking to demonstrate their machine learning expertise through a friendly competition, we have added a half-day Hack-a-Thon to this year's agenda. Attendees who choose to participate in the Hack-a-Thon will compete on teams to build the most accurate model of a real data set. The Hack-a-Thon is open to attendees of all skill levels, and we will ensure that less experienced entrants are teamed up with experts, making this a great learning opportunity. This event will be fast and furious, with four hours to develop a model and submit predictions, so that participants are still able to depart in time to catch a late afternoon flight on Friday.

Whether you choose to participate in the Hack-a-Thon or to focus on your continuing education in predictive analytics, the symposium is a great educational investment.

Here are some of the many sessions you can choose to attend and participate in—and where you can make connections with others who have similar interests:



- Behavioral simulation in actuarial models
- The evolution of predictive models in life insurance underwriting
- Predictive analytics in financial risk management
- Blockchain: Why it's important, and why now
- Jupyter Notebooks: Interactive, sharable documents consolidating input, output and documentation across multiple programming languages
- Industry best practices for data protection
- Sharing Shiny applications
- Insurance innovation and the AI revolution
- Dangers of overfitting: Myths and facts of predictive analytics
- From concept to commercialization: An agile approach to analytics use cases
- Convolutional neural networks and generative adversarial networks: Moving beyond basic neural networks for innovative advantages
- Visualization: A picture speaks a thousand words
- Multivariate feature engineering: Beyond simple data preparation
- Get your voice heard (how to get funding for predictive analytics projects)
- Using predictive models for life insurance assumptions
- How insurance startups become competitive
- Data science in the cloud in under an hour
- Nonquantitative considerations in insurance: Behavioral economics—the reason your strictly analytic models will fail!
- Bayesian model applications in insurance
- Natural language processing in the insurance industry
- How can an actuary become a data scientist?
- Why your company needs a data strategy
- Assessing credibility of predictive models
- Epigenetics—the superset of all things genomic: How will it change our lives? Also, how after-issue genetic testing can provide big savings
- Making the most of your R projects: Auditable, interactive R sessions with RStudio
- General insurance applications of predictive analytics
- Developing web application with R Shiny
- Introduction to computer vision and its applications in insurance
- Languages of predictive analytics: A Tower of Babel?
- Building an actuarial data science team
- Practical aspects of predictive models
- Using natural language processing to monitor and detect emerging risks

All of these are opportunities to learn from experts who empathize with your needs, speak in terms familiar to actuaries, love their topics, and want to share their knowledge and experience with you. Unlike a book or an online course environment, you can interact and forge lasting connections.

This is our third annual predictive analytics symposium, and it has been refined and updated to give you the best guide we can through the learning curve in a short time period. Past attendees have loved it. We hope that you will as well.

Please register at <https://www.soa.org/prof-dev/events/2019-predictive-analytics-symposium/>.

My co-chair, Xiaojie (Jane) Wang, and I look forward to seeing you! ■



Dave Snell, FALU, FLMI, ASA, MAAA, CLU, ChFC, ARA, ACS, MCP, teaches AI Machine Learning at Maryville University in St. Louis. He can be reached at dave@ActuariesAndTechnology.com.