Nathan Lally

AVP: Data Science & Business Analytics

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Experience

Data Science & Statistics

- **Sr. Machine Learning Modeler, HSB (Munich Re Group)**, November 2020 - Present
  - Lead a team of data scientists and software engineers on projects ranging from pricing, IoT sensor analytics, claims analytics, financial forecasting and more. Our team serves as a data science center of excellence for HSB.
- **Sr. Machine Learning Modeler, HSB (Munich Re Group)**, February 2018 - November 2020
  - Lead junior data science talent on technical projects and manage interns
  - Develop core pricing models and methods (Transactional EB, EPL, BII HSP/SL)
  - Perform IoT sensor data analysis and related insurance product pricing/development, including developing the pricing strategy for HSB's first monetized sensor product (freeze loss warranty)
  - Established an ongoing research agreement between HSB and UConn's departments of Statistics and Computer Science focusing on IoT anomaly detection methods
  - Coordinate and deliver data science education at HSB (time series short courses)
  - Represent HSB and Munich Re Group by presenting at academic and internal analytics conferences
- **Engineering Statistician, Pratt & Whitney (UTC)**, April 2016 - February 2018
  - Performed engineering analysis with statistical/probabilistic models and provided predictive modeling and optimization support to P&W Aftermarket and Finance departments
- **Adjunct Professor of Biostatistics, University of Connecticut**, January 2017 - May 2017
  - Taught "Introduction to Biostatistics for Health Professionals (AH 3005/5005)" to a class of approximately 100 undergraduate and graduate students in statistics, mathematics, and allied health sciences
- **Associate Data Scientist, The Hartford Insurance Group**, May 2015 - March 2016
  - Led efforts to build customer retention, issue rate, and customer lifetime value models
- **Graduate Assistant, University of Connecticut**, August 2014 - May 2015
  - Fully funded GA researching statistical/machine learning methods to predict
- **Actuarial & Data Science Internships, The Hartford Insurance Group**, May 2014 - August 2014, December 2014 - January 2015
  - Completed two internships in both actuarial (risk and profitability) and data science (personal lines auto) positions

Defense Contracting

- **Various Roles, General Dynamics Electric Boat**, 2008 - 2011
  - Worked in piping design, program planning and process engineering
  - Certified Lean Six Sigma Black Belt

Education

- **MS Mathematics, University of Connecticut**, 2015
  - Thesis: The Informative g-Prior vs. Common Reference Priors for Binomial Regression With an Application to Hurricane Electrical Utility Asset Damage Prediction
  - Awards: Google Student Poster Award (In honor of the best posters presented in the fields of Statistics and Probability at the 29th New England Statistical Symposium)
- **BA Mathematics/Statistics, University of Connecticut**, 2014
- **BA Political Science, University of Connecticut**, 2007

Volunteering & Outreach

- **Vice President, New England Statistical Society (NESS)**, June 2020-Present
  - Vice President in charge of the NESS Education Committee

  - Reorganized the committee into four subcommittees focusing on short course development, youth outreach, scholarship funds and ethics in data science education
  - Partnered with the NextGen Committee to establish NESS' new consulting service
- **Council Member, New England Statistical Society (NESS)**, May 2017-June 2020
  - Served on the education committee coordinating the society's educational activities and outreach

Technology

- **Programming Languages**
  - R, Stan, Python, SQL, Scala
- **Tech**
  - Linux, Git, LaTeX, Markdown, Microsoft Azure Cloud Services

Publications

- **Modern Methods for Insurance IBNR Reserve Estimation**, International Society for Business and Industrial Statistics (ISBIS) Blog Corner, 2019
- **Estimating Loss Reserves Using Hierarchical Bayesian Gaussian Process Regression with Input Warping**, Insurance: Mathematics and Economics, 2018 (link to pre-print version)
- **Predictive Modeling in Long-Term Care Insurance**, North American Actuarial Journal, 2016 (Undergraduate thesis)

Languages

- English
- Spanish (professional working proficiency)