

SPENCER CARTER

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Lead Data Scientist

Lead Data Scientist with 8+ years of experience across the spectrum of statistical modeling and deep learning, full stack. Record of success leading production projects and research, while developing talent. Skilled at communicating technical concepts to Sr. Leadership

WORK EXPERIENCE

Travelers Insurance | Atlanta, GA

2013-Present

Sr. Director & Data Scientist, Personal Insurance R&D (2020-Present)

Director & Data Scientist, Personal Insurance R&D (2018-2020)

Leading build of models to predict customer behavior and recommend treatment. Employing NLP to understand and utilize Voice of Customer data for decision-making and prediction

- Pitched and developed customer behavior modeling framework, serving just-in-time email treatments based on prior interactions. 5%+ reduction in calls for target groups shown statistically
- Designed, socialized, executed, and analyzed experiments. Experienced with call reduction, retention improvement, and call center optimization. Performed uplift for CATE predictions
- Created transformer-based semantic search and topic models for Voice of Customer data. Significantly accelerates the rate at which CX partners understand and act on customer feedback
- Head instructor for internal machine/deep learning class and GLM class since 2017

Director & Data Scientist, Claim Enterprise Medical Research (2017-2018) | Hartford, CT

Technically-focused director, led development of models for Worker's Compensation medical claims

- Led model build for nation-wide Worker's Comp. initiative to stratify claim severity and assign alternative workflows using XGBoost. New workflow reduces expense by \$9MM/year
- Championed the increased use of NLP at Travelers by teaching others and improving three existing models, adding 10+% lift in fit metrics for each
- Hosted modeling competition with 50+ competitors. Developed RESTful submission and leaderboard web services

Previously Manager & Sr. Data Scientist (2016-2017), **Sr. Data Scientist** (2015-2016), **Sr. Consultant & Data Scientist** (2014-2015), **Consultant & Data Scientist** (2013-2014)

Candoo LLC | Hartford, CT

2017-2018

Co-founder & Chief Analytics Officer

Startup combining on-demand drone flights and computer vision. However, founder life wasn't a great personal fit; made an exit as the company pivoted.

- Developed industry-specific computer vision models and Django API for job management
- Established and grew relationships with local drone pilots

SKILLS

	<i>Proficient</i>	<i>Experienced</i>
<i>Modeling</i>	Statistical, Machine, and Deep Learning; Model Monitoring and Validation; NLP	A/B Testing, Experimental Design, Power Analysis, Causal Inference, Computer Vision
<i>Programming</i>	Python, SAS, SQL	R, Shell Scripting, Flask, Django, REST
<i>Model Frameworks</i>	Scikit, Keras	PyTorch
<i>Misc.</i>		AWS Sagemaker, GCP ML Engine

EDUCATION

University of Alabama | Tuscaloosa, AL

Master of Science in Applied Statistics

Graduated August 2013

- Most Outstanding Masters Student in Applied Statistics

Bachelor of Science in Mathematics and Philosophy

Graduated May 2012

ADDITIONAL ACHIEVEMENTS

- Travelers Emerging Analytics Leaders Program Graduate 2020
- Travelers Data Science Leadership Development Program Graduate 2017
- Lead case development for Travers annual Actuarial Case Competition 2017
- InsurTech Hartford Hackathon Weekend 2017, 2nd place team