

Matthew Swogger

Data Scientist

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SUMMARY

I'm a highly-analytical thinker and quick learner with a background in physics and probability/statistics. I enjoy building models and finding insights in data that help to make people's lives better and easier.

SKILLS

Models

- Linear/Logistic Regression
- Recurrent Neural Nets
- A/B Testing
- Multi-Armed Bandits
- SVM
- KNN
- Random Forest
- K-Means
- Hierarchical Clustering
- Naive Bayes
- TF-IDF
- PCA
- ARIMA

Programming and Analysis

- Python
- tensorflow
- numpy
- matplotlib
- seaborn
- SciPy
- Pandas
- Scikit-learn
- Statsmodels
- NTLK
- BeautifulSoup
- Pymongo

Databases

- SQL
- MongoDB

Scalable Data Technologies

- Spark
- MapReduce

EXPERIENCE

GALVANIZE Machine Learning & Data Science Fellow Apr. 2016 - Jul. 2016 San Francisco, CA

A 13-week program consisting of 600+ hours of immersive instruction in the techniques and technologies of modern data science, covering everything from A/B testing on the conversion rate of different landing pages, to sentiment analysis using NLP, and classifying images using CNN.

Projects

Recurrent Neural Network Surge Forecaster

- RNN with one LSTM hidden layer trained on 16 point multivariate time series dataset. Has an MSE of 0.029. Repo: <https://github.com/matthewswogger/Surge-Forecast-with-RNN>

LinearSVM Breast Cancer Classification

- Used SVM to classify measurements from digitized images of a fine needle aspirate (FNA) as Malignant or Benign. Precision: 0.97, Recall: 0.98, F-1 Score: 0.97 and a False Negative Rate of 1.03%. Repo: https://github.com/matthewswogger/Breast_Cancer_Classification

US Army 82nd Airborne Division Combat Engineer Feb. 2003 - Dec. 2005 Fort Bragg, NC

- Deployed 9 months for Operation Iraqi Freedom and Operation Enduring Freedom
- Team leader: responsible for five soldiers' daily skill training, daily physical preparedness, and safety, allowing them to realize their full potential as Paratroopers
- Managed the radio, the ordinance removal (cache of found weapons and explosives), and the infiltration of buildings in the form of door removal/'door making' for a squad of ten Paratroopers

All Outdoors Raft Guide May 2008 - Aug. 2012 Lotus, CA

- Managed groups of up to 100 customers as the Raft Trip Leader on Class 4 whitewater on the Middle and South Forks of the American River
- Other duties included Medical Officer, and Swift Water Rescue Officer
- Obtained and maintained EMT, Swift Water Rescue Technician, Wilderness First Responder, and CPR certifications, allowing me to deliver the most enjoyable trip while maintaining the utmost safety possible

EDUCATION

B.S. Physics Dec. 2013 University of Nevada, Reno, NV

A.A. Outdoor Recreation Leadership Dec. 2008 Feather River College, Quincy, CA

ACTUARIAL EXAMS

Exam Financial Mathematics Oct. 23 2014
Exam Probability and Statistics May 14 2015