

# Andrea Osika

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Operations Analyst / Data Scientist with a background in both the private and non-profit sectors is passionate about wellness, data, and helping others and career-long dedication to process development/refinement and continuous learning. Experienced in back-end engineering (Python, SQL), research, KPI Development, A/B testing, statistical analysis, machine learning (sci-kit-learn, Pandas/NumPy), and deep learning (Keras). Highly skilled in synthesizing ambiguous or complex information to engage stakeholders in productive dialogue that drives sound business strategy and outcomes.

## TECHNICAL PROJECTS

### Hypothesis Testing, A/B Testing - [GitHub](#)

#### **Drew upon SQL and logistic regression techniques to derive business intelligence**

- + Queried SQL database to obtain relevant data for each test
- + Answered regression and classification questions of commercial interest using parametric and non-parametric testing.

### Hyper-Imbalanced Classification and Analysis on large dataset - [GitHub](#)

#### **Random Forest Classification to derive top ten feature importances for contracting COVID-19**

- + Utilized open-source dataset containing 619K samples with 43 features with .13% reflecting the target class.
- + Achieved overall accuracy average of 97% and weighted recall of 97%

### Deep Learning using NLP using Recurrent Neural Networks for multi-label classification - [GitHub](#)

#### **Use of NLP to identify toxic or inappropriate language in an online open forum discussion**

- + Trained a wide range of shallow- and deep-learning models, relating exploratory statistics to resulting feature importance
- + Use of [Focal Loss](#) to address classes that contained baseline rates of >10%, to realize an increase of 29% recall

### Support Vector Classification & Clustering/ Segmentation using LDA - [GitHub](#)

#### **Built an NLP app for word-prediction of app-reviews (85% & 92% recall, 41% & 31% baseline)**

- + Used NLP and linear Support Vector Classification for classifying positive and negative sentiment from app reviews
- + Optimized subsets using Latent Dirichlet Allocation (LDA) to inform best practices and identify growth opportunity

## TECHNICAL SKILLS

Data/Statistical Analysis, Regression, and Logistic Modeling, A/B Hypothesis Testing, Python, Pandas, NumPy, SkLearn, Keras, Random Forest, SQL, Data Visualization(eg.Matplotlib, Seaborn) Project Management, Presentation, Collaboration MS Office: Excel – samples upon request

## EMPLOYMENT HISTORY

### Cisco Systems, [Corporate Social Responsibility](#), Phoenix, AZ

#### *Program Specialist, Education Non-Profit Investments*, Jan 2011 - Present

+ Grantmaking and assessment specializing in analysis, KPI/Metric development, research, reporting, and presentation skills using quarterly and historical data to inform portfolio performance and investment strategies to cross-functional teams. Working with non-profits for capacity building solutions in education technology. (portfolio of \$2.6M)

### [Aries Technology, Inc.](#), Tempe, AZ

#### *Director of Operations, Contractor, Consultant*, Jan 2001 - Jul 2017

- + Managed projects, contracts, SOW, RFP response, billing, accounts payable, HR support, vendor relations for 350 head workforce and \$10M annual budget
- + Strengthened client relationships through clearly articulated, evolving advice, backed by data and regular reports

### Cisco Systems, Phoenix, AZ

*Project Manager, [Networking Academy](#)* Jan 2001 - Jun 2002 Operations and budget management directly reporting to the Director and Co-Founder in infant stage to scale to serve over 7million students globally

## EDUCATION

### Flatiron School, New York, NY - 2018

- + Data Science Immersive Program

### Colorado State University, Ft. Collins, CO - 1995

- + Bachelor of Arts in Soc. Science (Psychology, Sociology), Minor Spanish