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San Francisco, CA

# LUKE PERSOLA

## Data Scientist • Engineer

lukepersola.com  
Persola  
LukePersola

### EXPERIENCE

#### Data Science Fellow Metis

Jan 2019 – Mar 2019  
San Francisco

##### Biographical semantic search tool

When queried with a short phrase describing a well known person, this website tries to identify who the user is thinking of. The query is vectorized with GloVe and compared to text from Wikipedia articles identified as biographies. The results are displayed as a list ranked by cosine similarity and the prominence of the biography's subject.

##### Modeling topics from video product reviews

Reviews of films and TV shows available on Amazon Prime Video were divided by rating and the topics were extracted from each group through latent Dirichlet allocation, revealing what was occupying customers' minds when they either strongly liked or disliked a product.

##### Predicting court decision for government contractor misconduct [\[blog post\]](#)

A database of incidents of federal government contractor misconduct (violating law, regulation, etc.) was combined with information about lobbying firms to train a support vector classifier to predict the type of punishment incurred.

#### Software Engineer Demandbase

Dec 2014 – Jan 2018  
San Francisco

- Wrote ETLs in SQL which processed hundreds of thousands rows nightly to and from data warehousing services, MapReduce clusters, partner APIs, and caches in order to supply application APIs with data
- Built interactive plots to display up-to-date advertising metrics to clients
- Proposed and implemented changes to a Sidekiq instance (job queuing system) after recurring backups broke reporting in production
- Worked directly with users to redesign parts of an advertising campaign management system for their workflow, speeding up some tasks by an order of magnitude
- As a scrum master, led engineering teams in improving processes and developing standard practices

#### Software Engineer Perceptive Software

Sept 2013 – Sept 2014  
San Francisco

- Developed features across the stack (database, back end, front end) of a legacy video CMS
- Reimplemented system components as Ruby services with messaging through RabbitMQ

#### Web Developer (contract)

Dui Hua Foundation via Iconcells, LLC

Aug 2013 – Nov 2013  
Remote

- Built detailed data entry tools used to track the legal status of political prisoners

### EDUCATION & TRAINING

#### ScrumMaster Certification cPrime

2016

#### The Pennsylvania State University

Honors in Anthropology, Minors in Neuroscience and Japanese  
Paterno Liberal Arts Undergraduate Fellow

2012

### TECHNOLOGIES

Python 3  
NumPy  
Pandas  
scikit-learn  
Matplotlib  
seaborn  
gensim  
spaCy

shell  
Git  
AWS

SQL  
MongoDB  
Redis

Ruby  
Rails  
JavaScript  
React  
Redux  
HTML  
CSS