

Çağla Taşdemir



- Istanbul Technical University
 - B.Sc & M.Sc Telecommunications Engineering



- Stony Brook University
 - Ph.D, Electrical Engineering
 - Monte Carlo methods in signal processing
 - Parameter estimation
 - Model selection
 - Bayesian inference





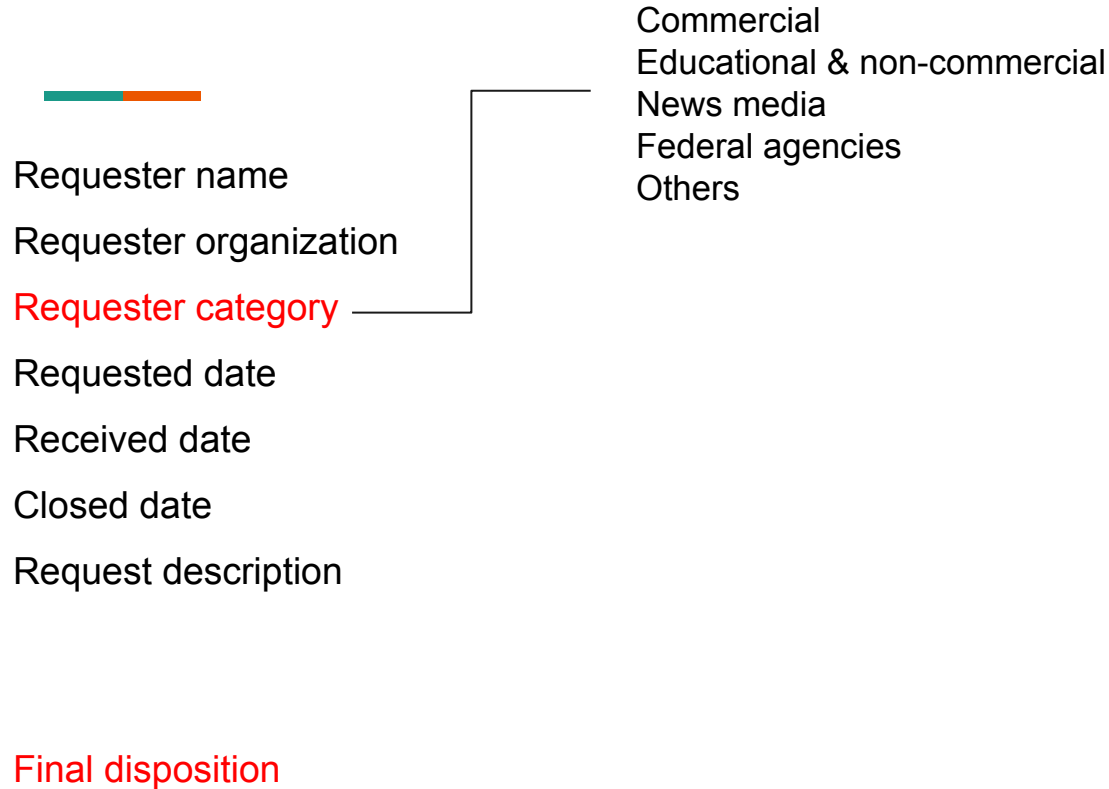
**Grant myFOIA:
Will your Freedom of Information
Act Request be approved?**

About FOIA




- Since 1967, the Freedom of Information Act (FOIA) has provided the public the right to request access to records from any federal agency.
- Predicting **the request success (granted/denied)** of a FOIA request would be useful for both individuals and organizations.
- This prediction can help journalists decide whether to hold a story while waiting to hear back.

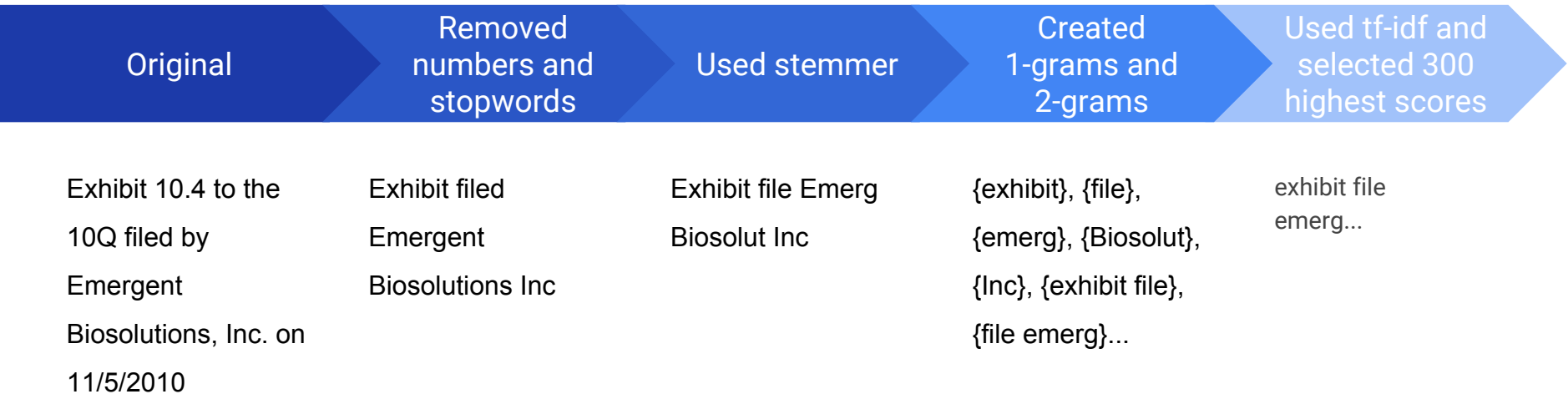
Dataset - Securities and Exchange Commission



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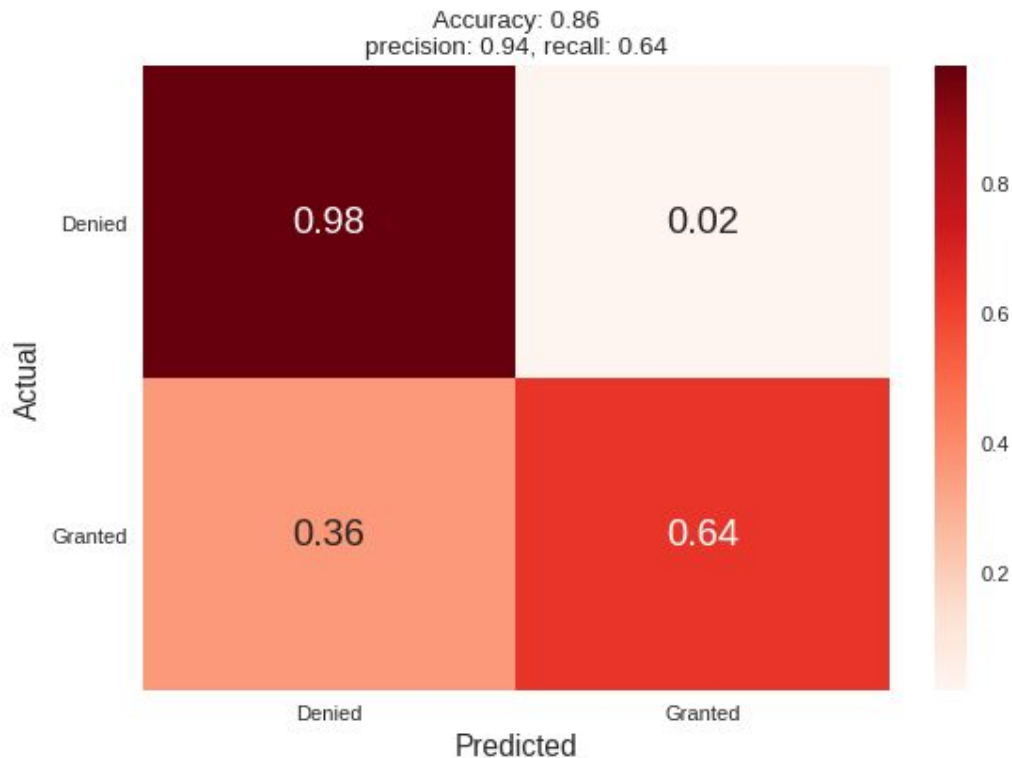
| | |
|---|--|
|  | |
| Requester name | |
| Requester organization | |
| Requester category | News Media → ~15% |
| Requested date | 2015-06-22 2015-07-12 |
| Received date | |
| Closed date | Exhibit 10.4 to the 10Q filed by Emergent Biosolutions, Inc. on 11/5/2010 The Bank of New England Corporation |
| Request description | Residential mortgage request John Lynch FOIA Request No. 09-02560-FOIA |
| Final disposition | Denied Granted |

Request Description - NLP

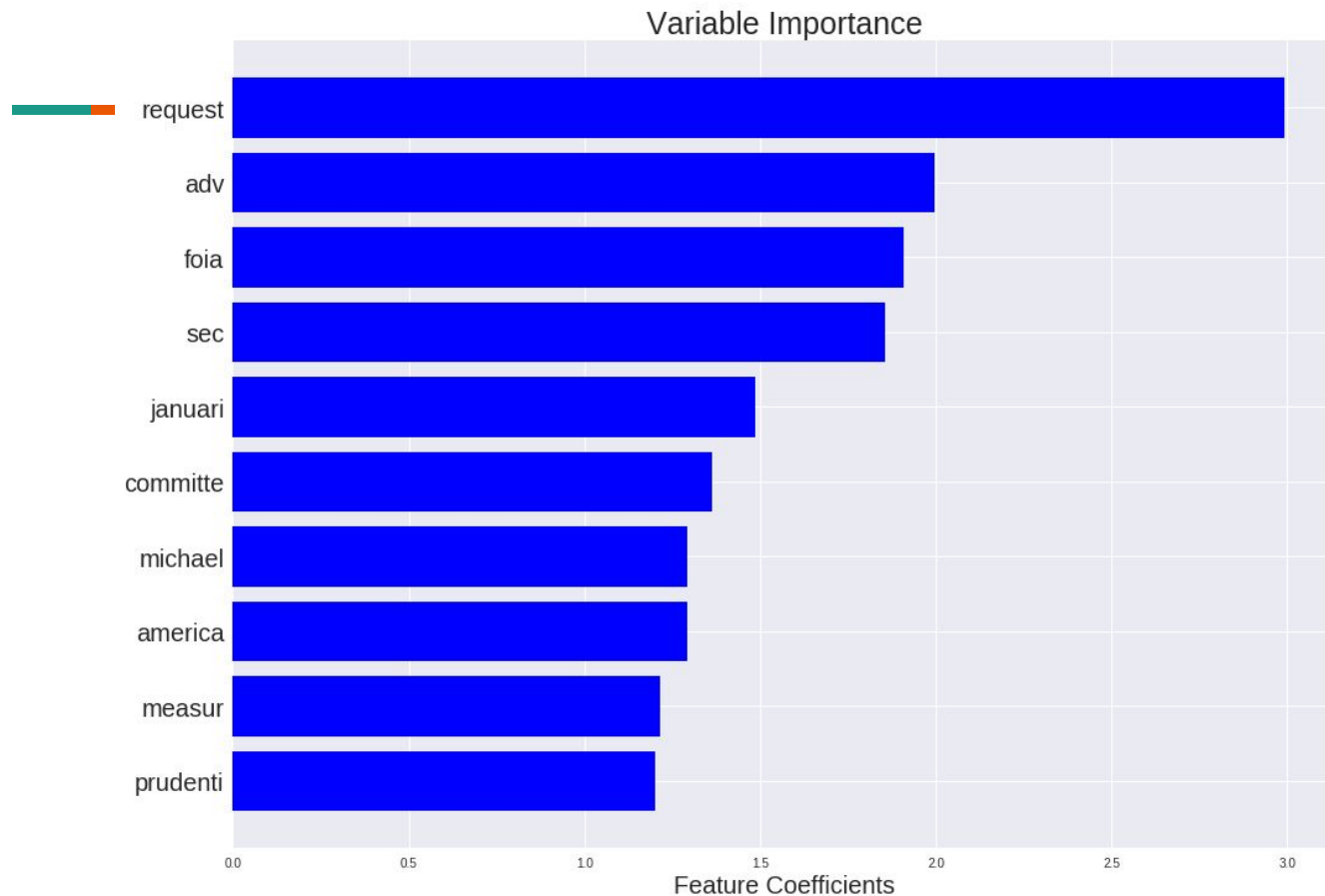


Classification : Logistic Regression

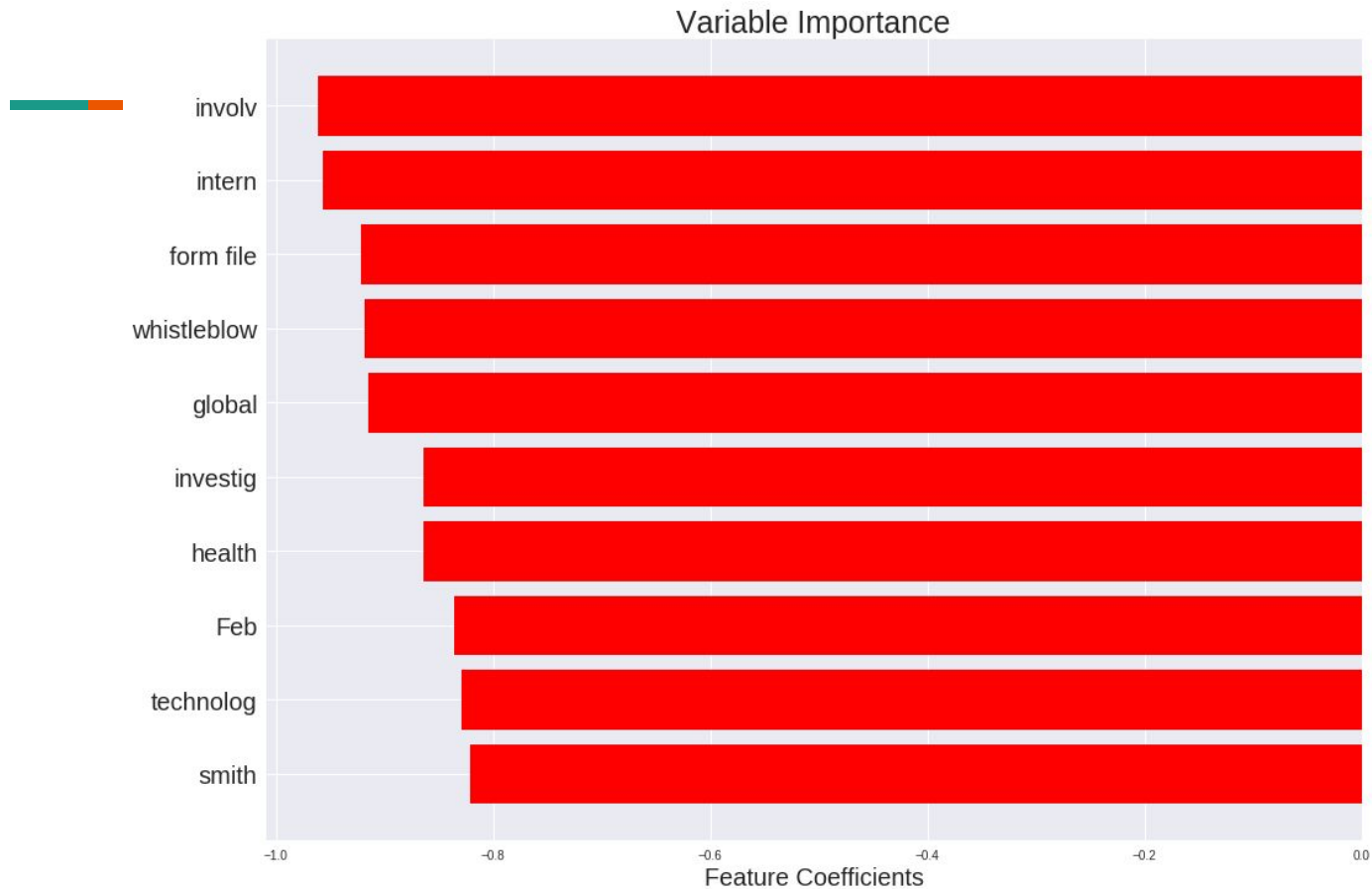
- Dataset with 1637 requests
 - Training set
 - 418 granted
 - 809 denied
 - Test set
 - 139 granted
 - 271 denied
- Logistic regression with L2 penalty
 - Small dataset, many features
 - Linear classifier
- Imbalanced dataset
 - Updated class weights



Feature Importances - positive coefficients



Feature Importances - negative coefficients



Prediction results:



| Correctly classified requests | Actual | Prediction |
|---|----------------|----------------|
| applications for whistleblower awards | Denied | Denied |
| FOIA request 16-02523-FOIA filed by the Democratic National Committee | Granted | Granted |

| Misclassified requests | Actual | Prediction |
|--|----------------|----------------|
| communications from the SEC to the California Public Employees' Retirement System | Denied | Granted |
| Net Element Intern ational | Granted | Denied |

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FOIA REQUEST PREDICTION

Please enter your information

Select Requester Category: News Media ▾

Please describe your FOIA request: e.g. Any FOIA requests on AB

Select Requested Year: 2014 ▾

Select Requested Month: Jan ▾

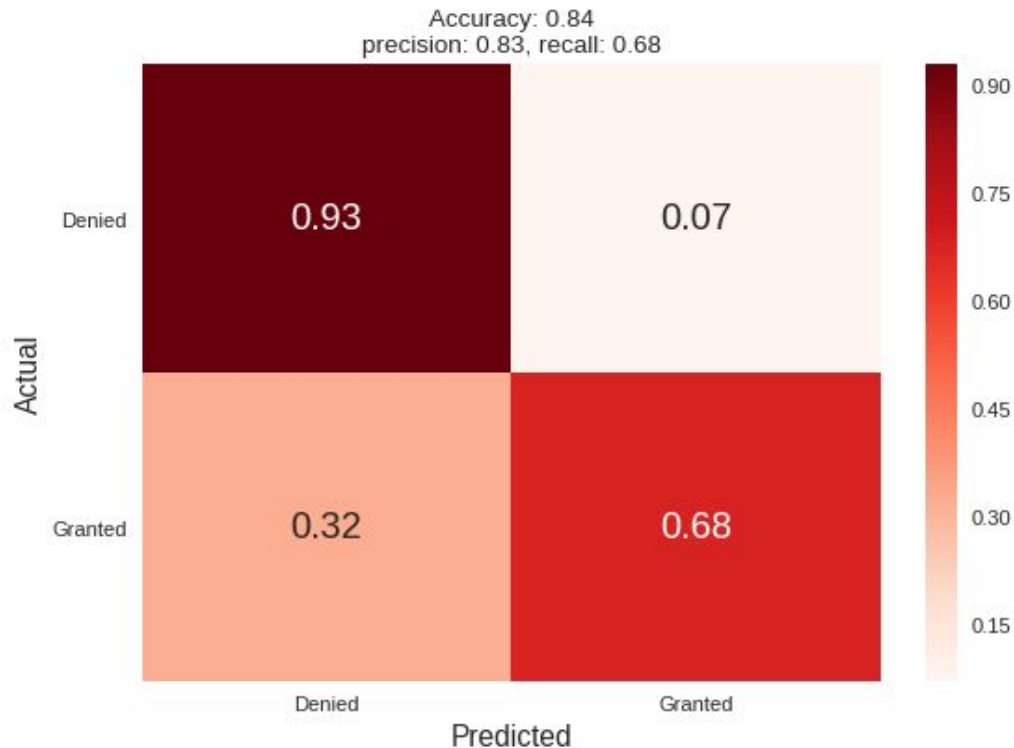
SUBMIT

Learning Curve - Logistic Regression

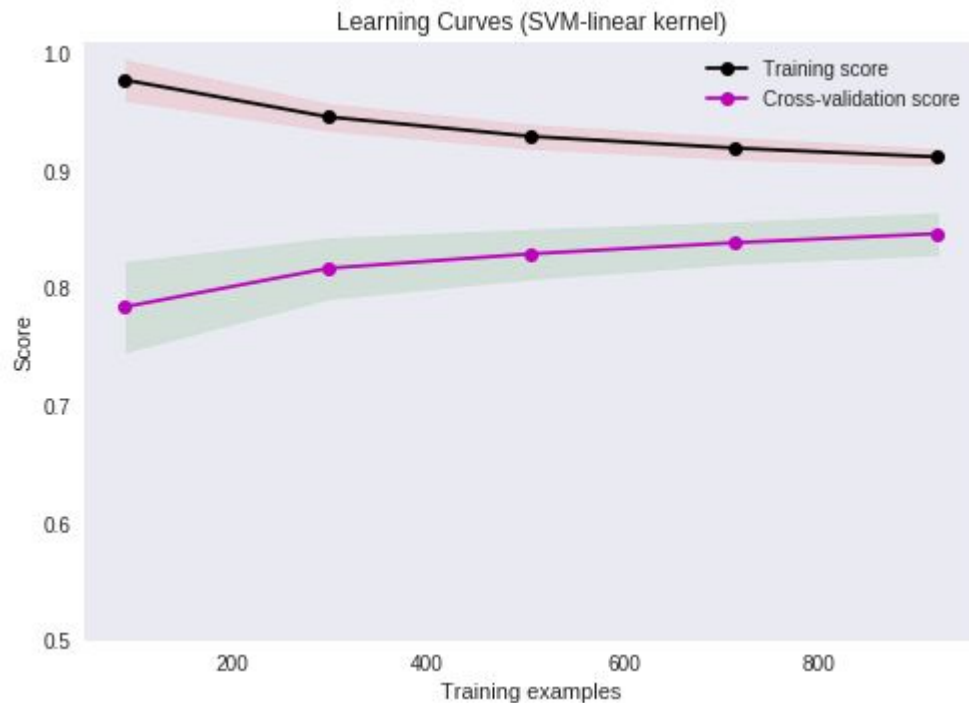


Classification : SVM with linear kernel

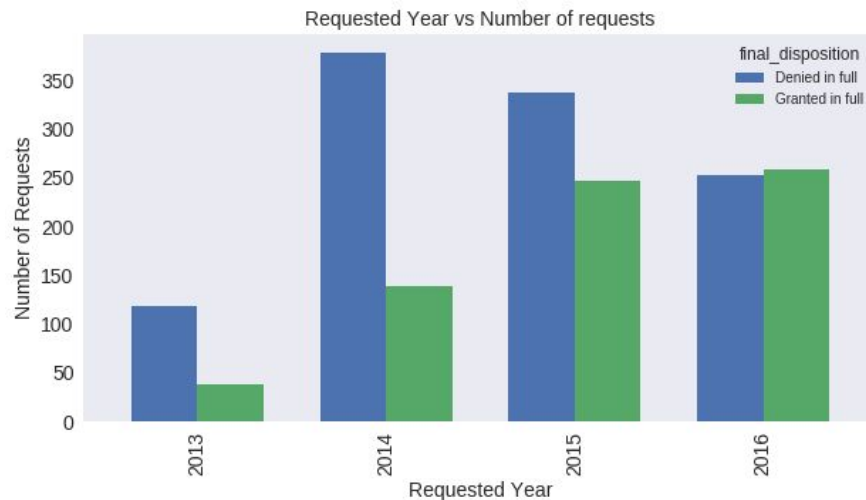
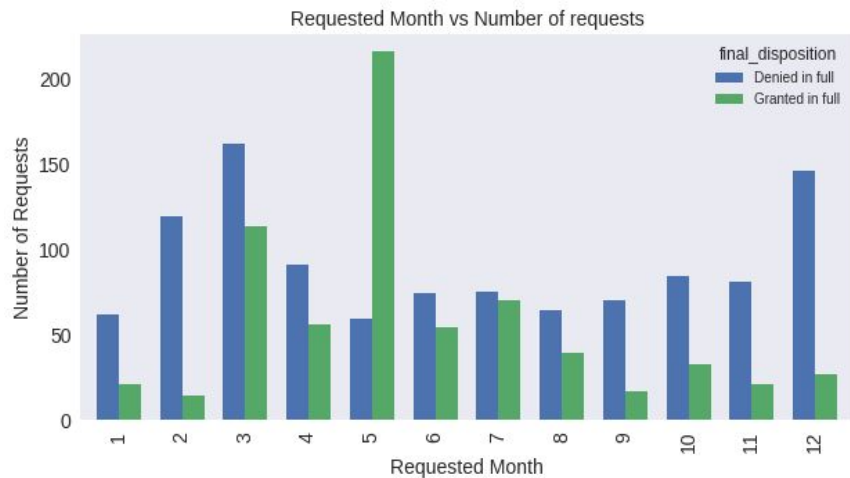
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Learning curve - SVM with linear kernel



Requested Month & Year



Classification : Random forest

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