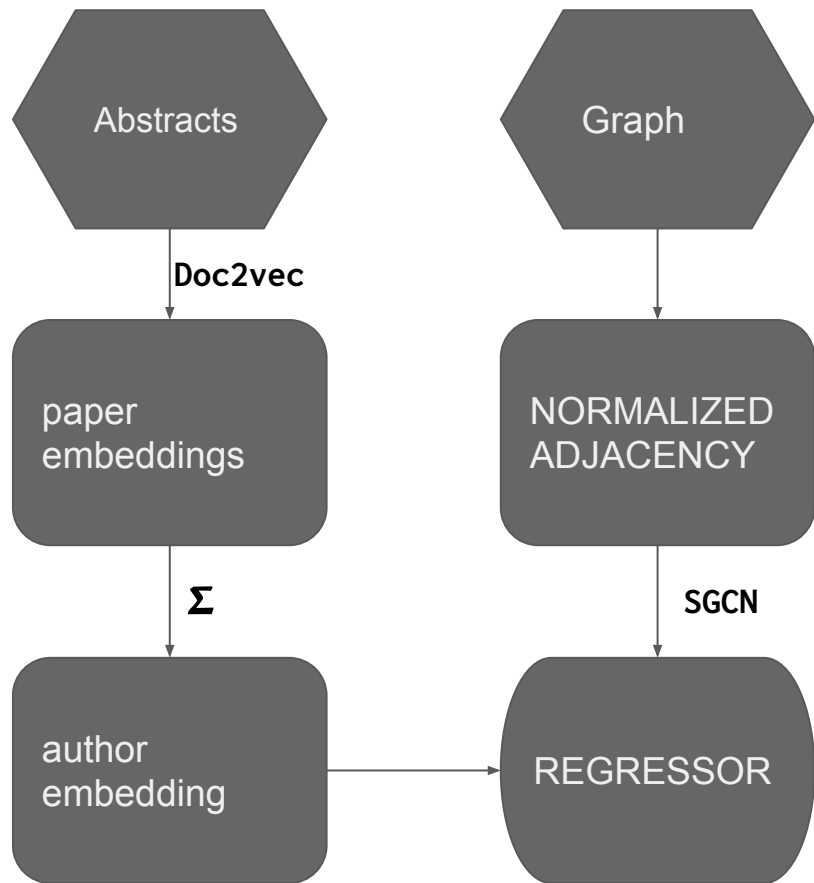


ALTEGRAD 2021

GARDE Joël

A pair of black binoculars with gold-colored rings is positioned diagonally across the upper half of the image. They are resting on an old, detailed map that features various geographical features, including rivers, roads, and place names. The map is aged and has a yellowish tint. The binoculars are in sharp focus, while the map is slightly blurred in the background.

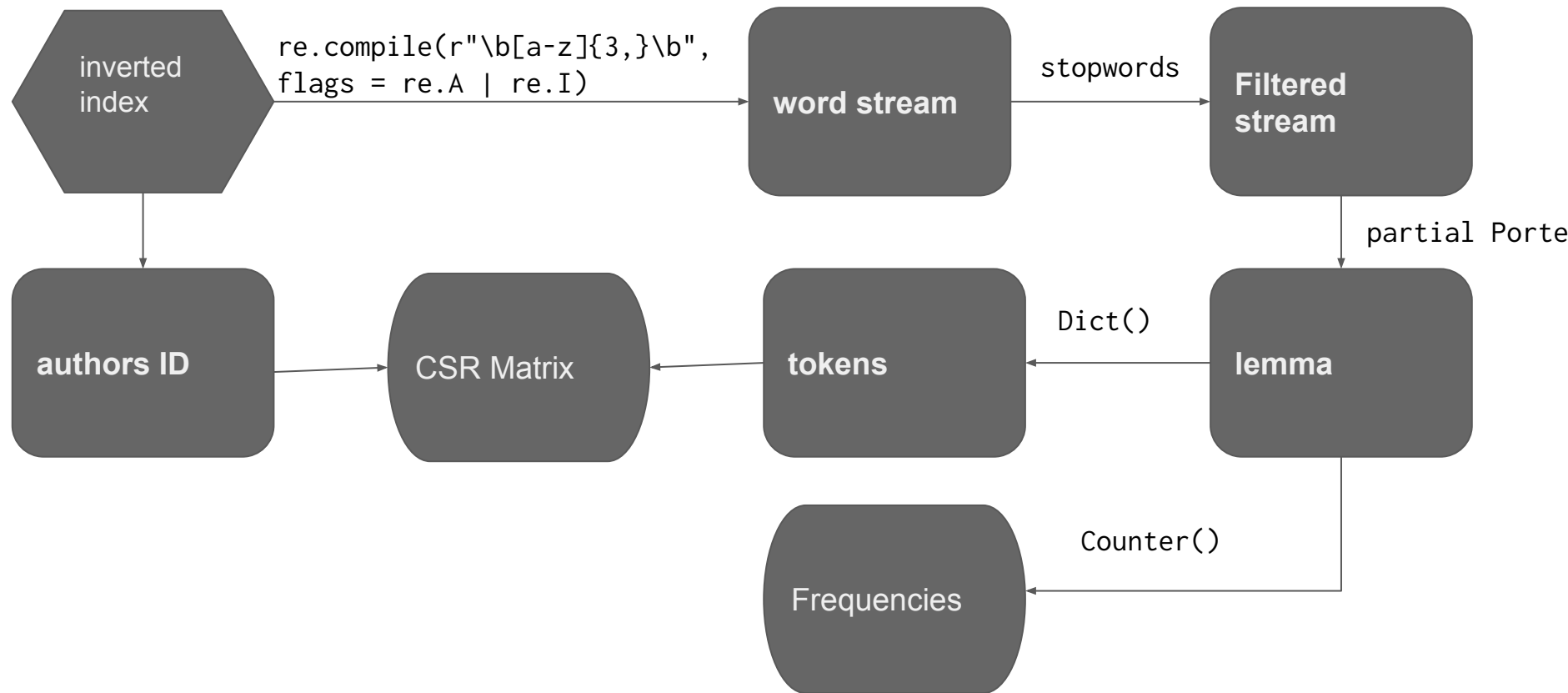
OVERVIEW

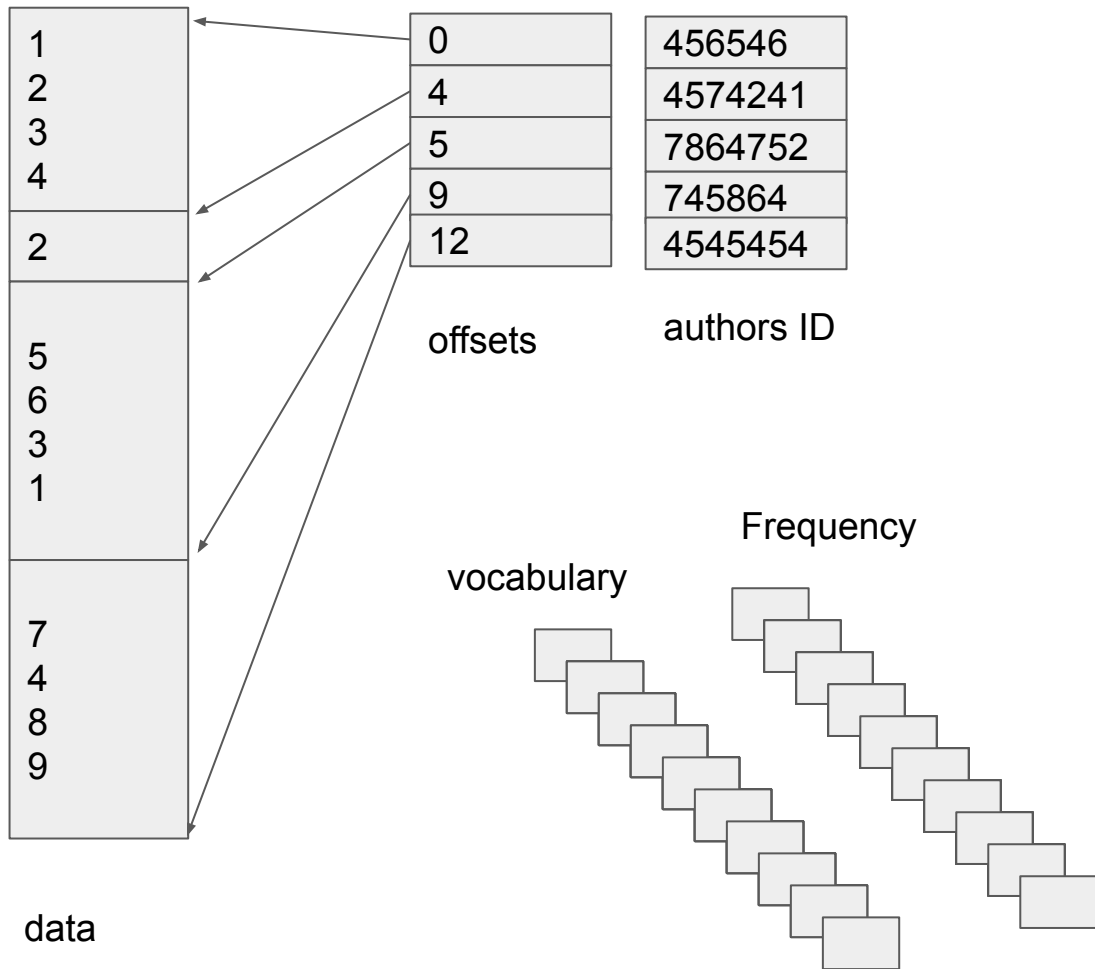


- End to end
- Fusion both sources

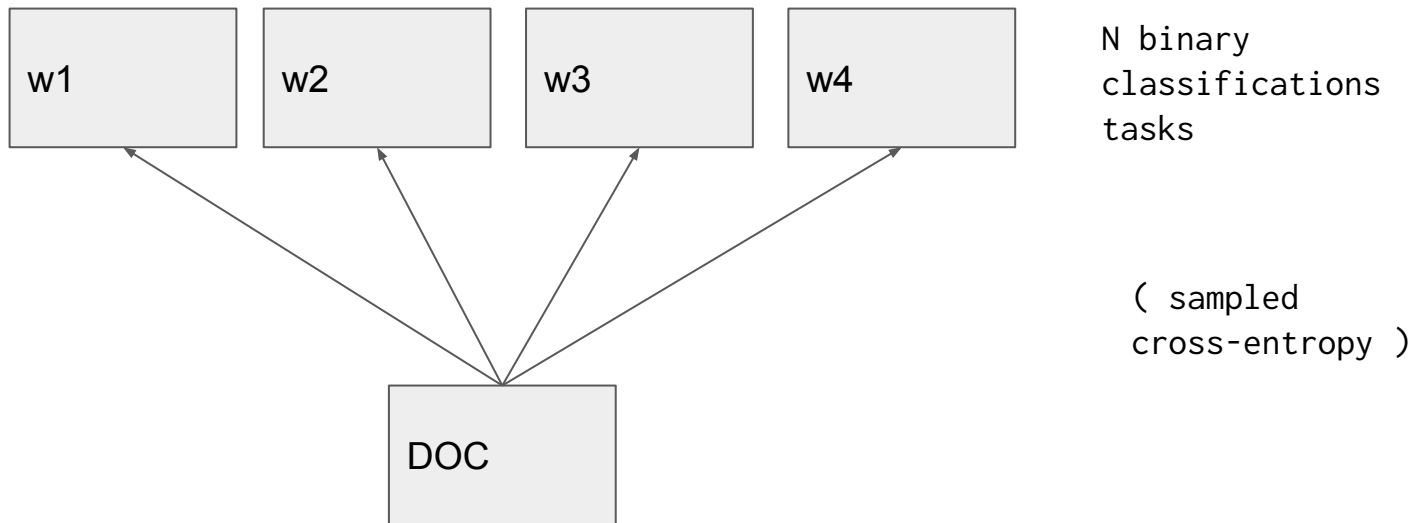


PREPROCESSING

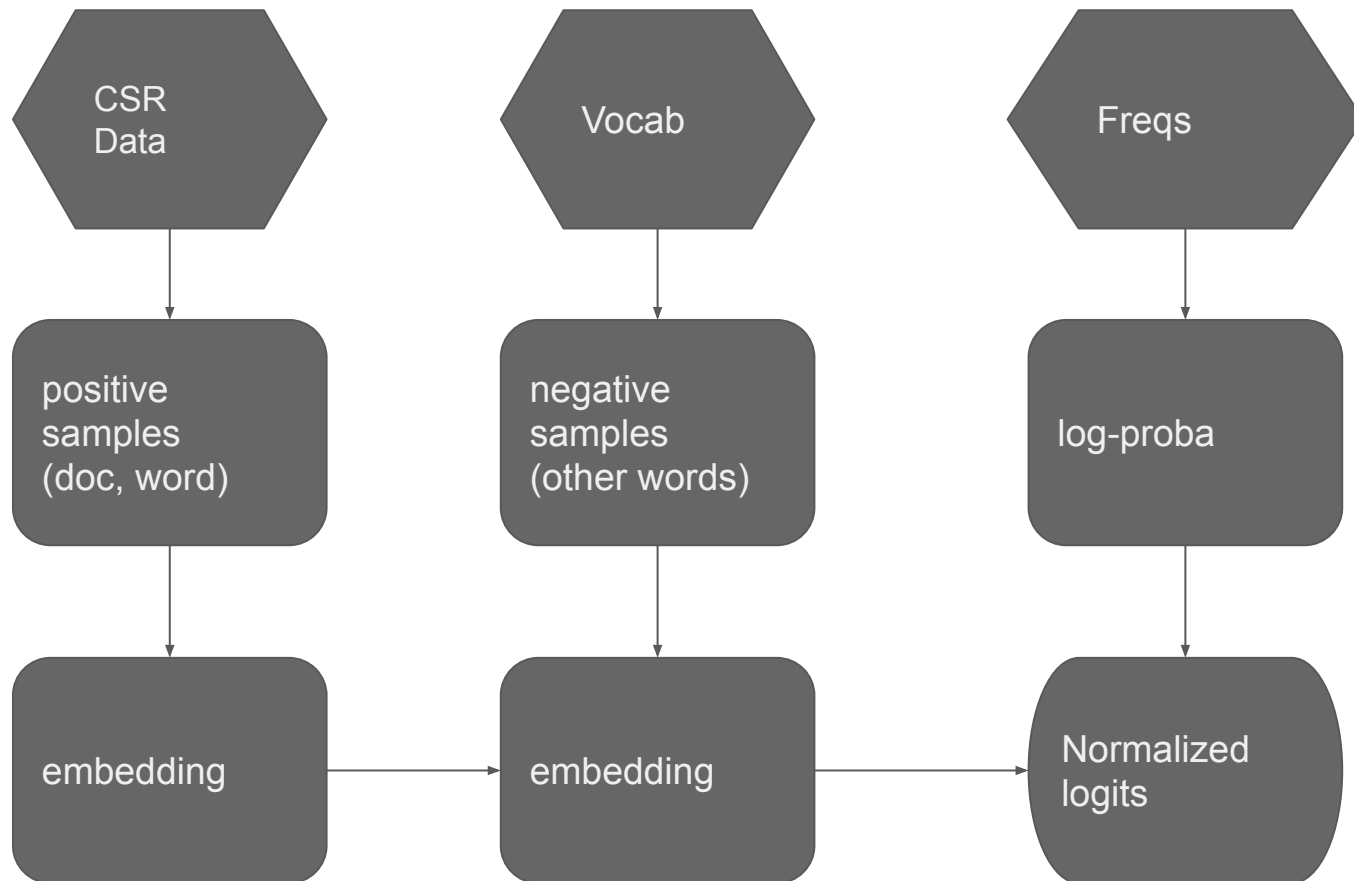




DOC2VEC



PV-DBOW





AUTHORS IDS



SGCN

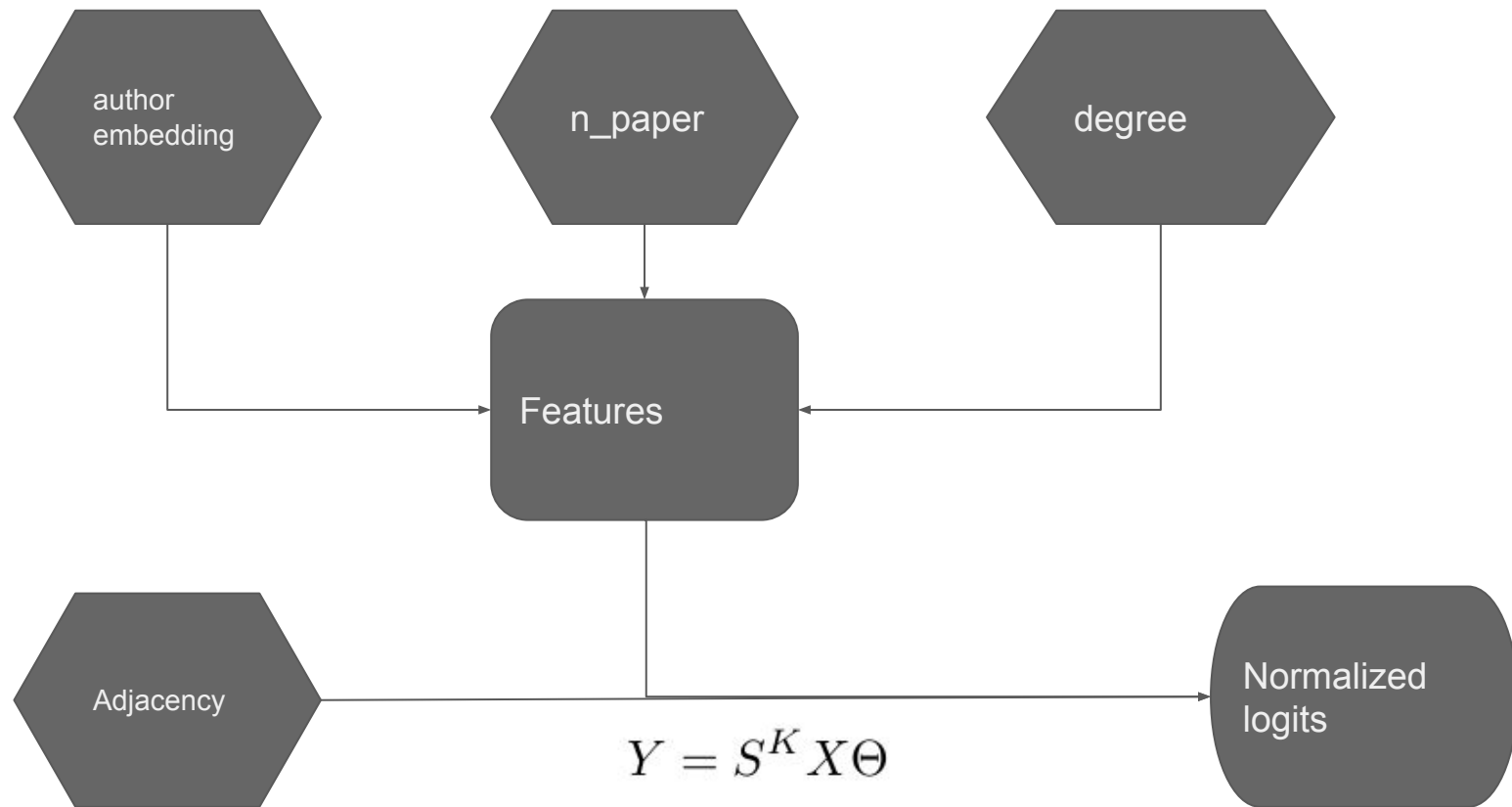


- Degree
- number of papers
- learnt embedding
- k-core

- node2vec ???

Features

[Sarigöl et al., 2014] Emre Sarigöl, Rene Pfitzner, Ingo Scholtes, Antonios Garas, and Frank Schweitzer. Predicting scientific success based on coauthorship networks. EPJ Data Science, 02 2014.



[Wu et al., 2019] Felix Wu, Tianyi Zhang, Amauri Holanda de Souza Jr. au2, Christopher Fifty, Tao Yu, and Kilian Q. Weinberger. Simplifying graph convolutional networks, 2019.

	Model		
$Y = \text{softmax}(A \text{ relu}(AXW_1)W_2)$	GCN	Slow to optimize	[Kipf and Welling, 2017] Thomas N. Kipf and Max Welling. Semi-supervised classification with graph convolutional networks, 2017.
$F_{i+1} = \alpha SF_i + (1 - \alpha)Y$	Local / global Consistency	classification only	[Zhou et al., 2004] Dengyong Zhou, Olivier Bousquet, Thomas Lal, Jason Weston, and Bernhard Schölkopf. Learning with local and global consistency. In S. Thrun, L. Saul, and B. Schölkopf, editors, Advances in Neural Information Processing Systems, volume 16. MIT Press, 2004.
$Y = S^K X \Theta$	SGCN	fast	[Wu et al., 2019] Felix Wu, Tianyi Zhang, Amauri Holanda de Souza Jr. au2, Christopher Fifty, Tao Yu, and Kilian Q. Weinberger. Simplifying graph convolutional networks, 2019.

Other Architectures and tests

A close-up photograph of two slices of chocolate cake on a white plate. The cake has a dark, moist interior and a crumbly, browned exterior. A small purple flower-shaped decoration is visible on the bottom slice. A white rectangular text box is centered over the image, containing the word "RESULTS" in black, uppercase, sans-serif font.

RESULTS

parameters

- 10% validation data
- early stopping
- weight-decay
- adam optimizer
- learning rate schedule
- K

model	score
dummy	7.2
FC / GCN	4.9
SGCN	4.7

- more exotic GNC
- Core number as feature

also tried