VOORTGANG FOOD PROJECT

HUMAN MACHINE TEACHERS

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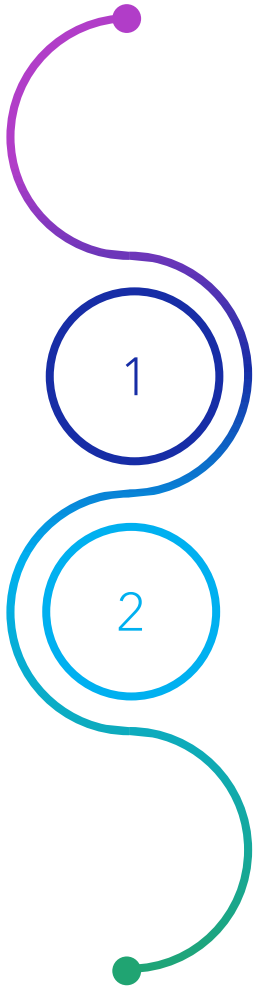
INHOUD



User Profile Generator

1

Matrix Vermenigvuldiging

Singular Value Decomposition

1

User Profile Generator (Matrix Vermenigvuldiging)

	Matrix C		
1	1.6	0.405	1.891
2	-0.59	0.469	0.462
3	-1.62	0.19	0.189
4	0.034	0.743	1.515
5	0.338	-0.79	0.995
	Rank 3		

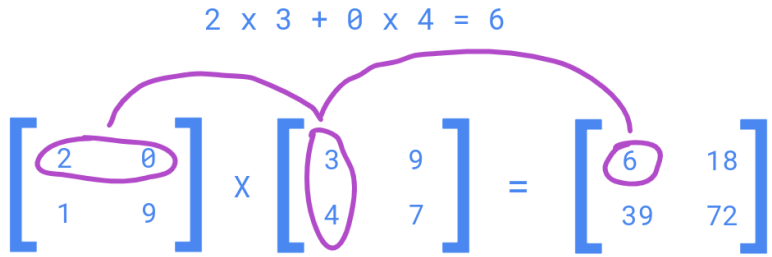
	Matrix V		
Andijviestamppot met gebakken salami	-0.72	-0.57	0.521
Libanese wraps met appel-koolsalade	1.674	-0.45	2.557
Plaattaart met gegrilde groenten en witte kaas	-1.16	-0.28	0.1
Zalmspies met sojaglaze van de BBQ	0.877	-0.21	-0.19
&Suus' buik-weg-salade	0.899	0.677	0.743
	Rank 3		

3 features per recept en profile

Waarden gekozen uit "Standard Normal" Distribution

Matrix M				
-1.91	-0.3	-1.46	-1.81	-2.4
-1.95	0.374	3.973	-4.94	-2.67
1.526	0.282	-0	2.314	1.804
-0.07	0.175	3.053	-2.04	-0.04
-1.39	-0.65	-3.65	0.025	-1.54

Matrix M = C V′



Het kan zijn dat de waarden in dit voorbeeld niet kloppen.

1

User Profile Generator (Dropping Values)

Matrix M				
-1.91	-0.3	-1.46	-1.81	-2.4
-1.95	0.374	3.973	-4.94	-2.67
1.526	0.282	-0	2.314	1.804
-0.07	0.175	3.053	-2.04	-0.04
-1.39	-0.65	-3.65	0.025	-1.54

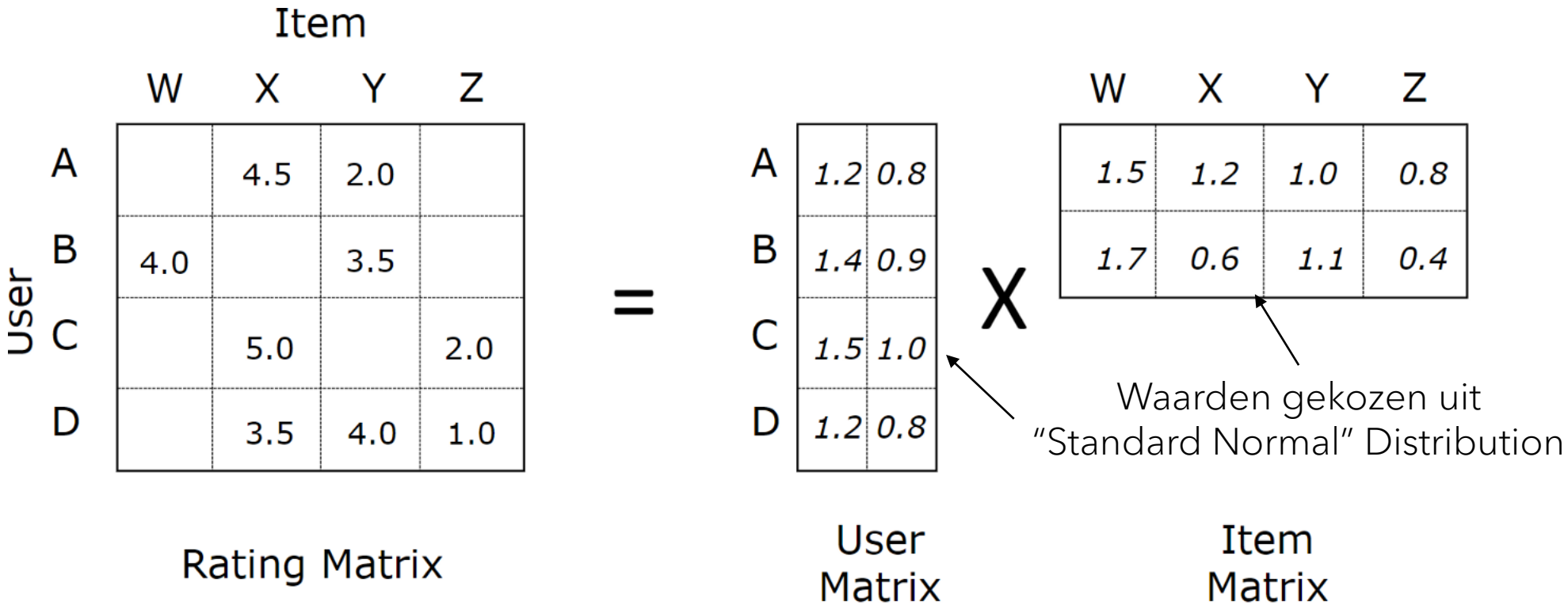
→ Drop 70% of values →

Andijviestamppot met gebakken salami	Libanese wraps met appel-koolsalade	Plaattaart met gegrilde groenten en witte kaas	Zalmspies met sojaglaze van de BBQ	&Suus' buik-weg-salade
-1.91	NaN	-1.46	NaN	-2.4
-1.95	NaN	NaN	-4.94	NaN
NaN	0.282	NaN	2.314	NaN
-0.07	NaN	3.053	NaN	-0.04
NaN	-0.65	NaN	0.025	-1.54

Het kan zijn dat de waarden in dit voorbeeld niet kloppen.

New User Predictor

1



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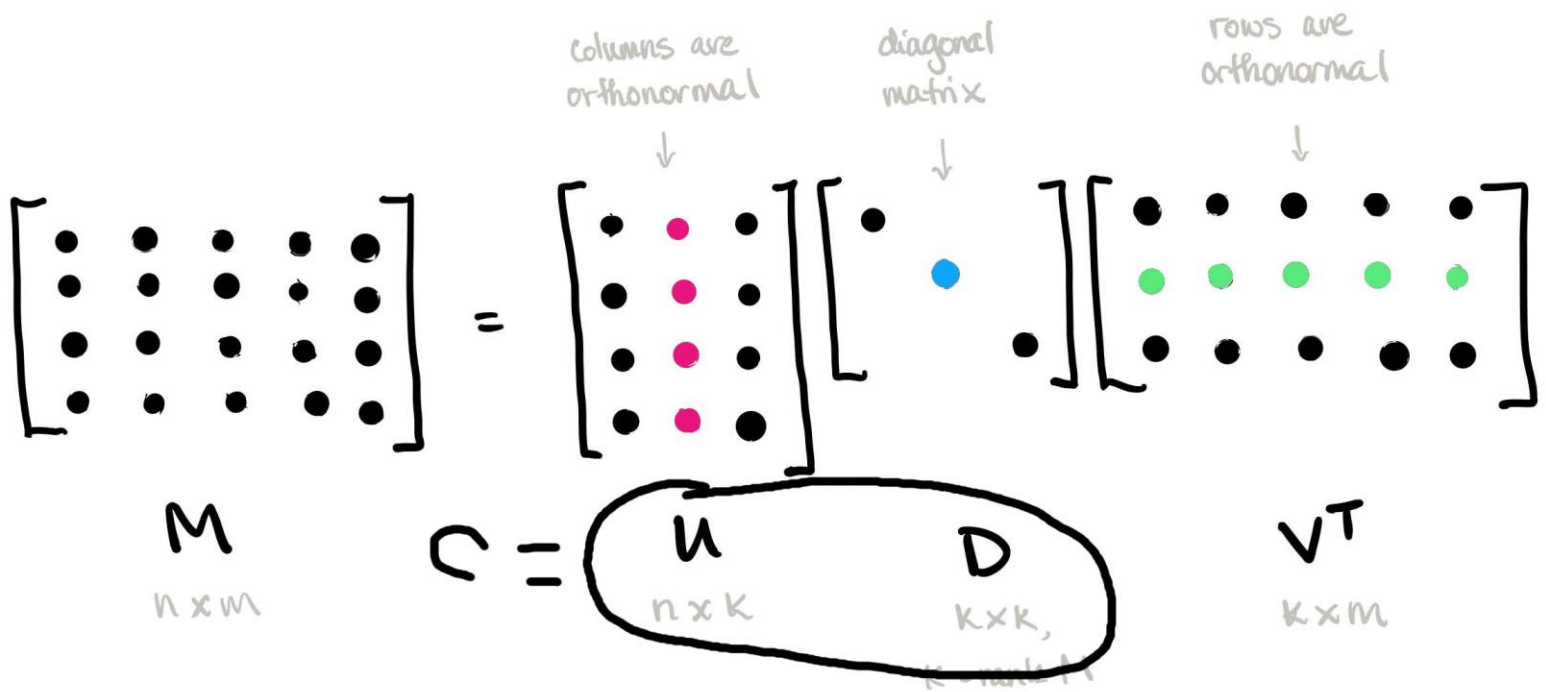
New User Predictor (SVD)



Matrix M = C V'

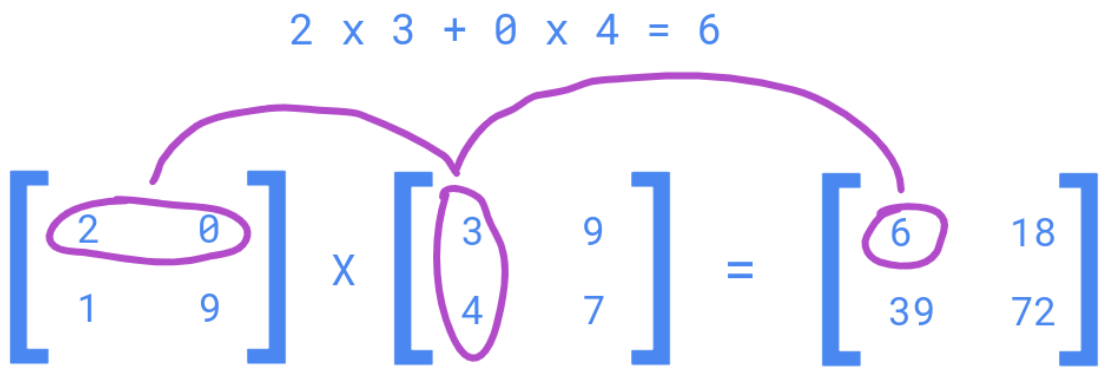
New User Predictor (Multivariate Linear Regression)

Wat is MLR?

Waarom MLR hier?

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \ldots + \beta_i X_i$$

Y : Dependent variable
β_0 : Intercept
β_i : Slope for X_i
X = Independent variable



New User Predictor (Multivariate Linear Regression)

X = V van de recepten
y = Geobserveerde X

Vragen?