Results

Work in progress

Demographics and baseline feature extraction

Dataset demographics	
Sample size (n)	86
Age (years)	58.6 ± 14.9
Sex (males : females)	35 : 81
Pain side (L : R)	38 : 48
Surgery (GK : MVD : rhizotomy)	50 : 32 : 4

- 19 PCs to explain 95% of variance in data.
- PC1 vs Duration of response: r = -0.48 [-0.65 – -0.28] (p = 0.0007)

Feature	PC1 Weight
MVD history	0.335632
GK history	0.329493
Triggers	0.329472
Diabetes	0.314593
Pain description	0.311991
Medication effect on pain	0.300786
Liver/GI disease	0.295251
Frequency of attacks	0.277658
Affected branches	0.259692
Trigeminal deficit	0.249866
Musculoskeletal comorbidities	0.155456
Thyroid comorbidities	-0.13547
Urogenital comorbidities	0.10515
Age	-0.09092
Autoimmune comorbidities	-0.08575
Pain duration	0.082589
Pain side (laterality)	-0.08199
Sex	-0.06408
Other neurosurgery	-0.04577
Cancer	-0.01457
Hypertension	-0.0106
Cardiological comorbidities	-0.00522
Dyslipidemia	0.004421
Respiratory comorbidities	-0.00136
Psychiatric comorbidities	0

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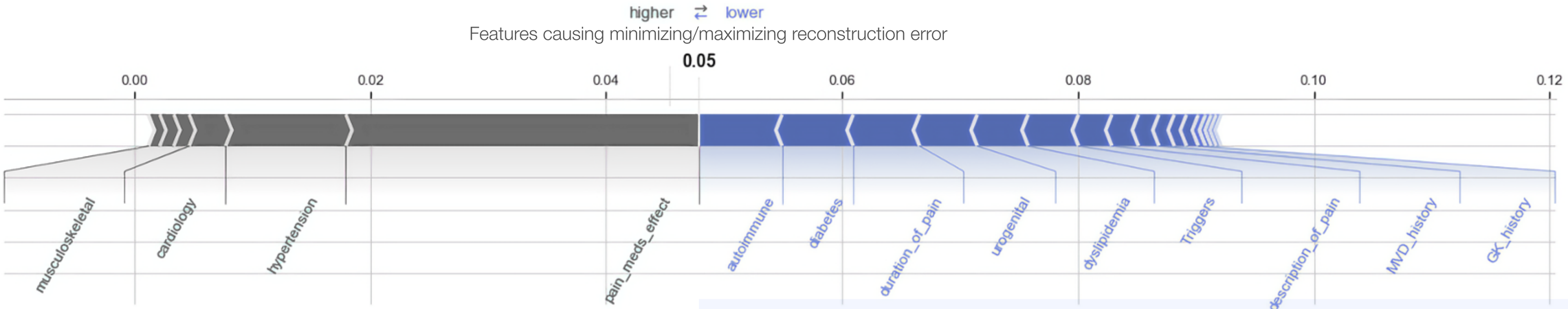
Feature selection



Features dropped: Musculoskeletal comorbidities, cardiological comorbidities, hypertension, pain medication effects, trigeminal deficit, affected branches.

Intuitively, Shapely value reconstruction error model makes sense!

- Trigeminal deficit is difficult to assess objectively. Does not capture effects of individual deficits.
- Degree of medication relief is subjective; compliance and consistency is difficult to control for.
- Heart-related comorbidities is a multi-factorial variable
- MSK comorbidities pathogenesis and etiology is most likely independent of TN.