**Linear algebra topics**

**you should know**

Vectors and matrices, multiplication

inner product, projection

Basis, (complete, orthonormal)

Orthogonality, linear (in)dependence

eigenvalues and eigenvectors; singular values and vectors

SVD

**we will cover**

Norms, distance

Positive semidefinite (PSD)

linear regression

PCA

Pseudo-inverse

Thin SVD