Binary ^{2}

0 1

2^2

16 8 4 2 1

1 1 0 1 0

16 + 8 + 2 = 26

Decimal ^{10}

0 1 2 3 4 5 6 7 8 9

10^2

100 10 1

3 7 1 ~~0~~

300 + 70 + 1

1 binary number = bit

0, 1

8 binary numbers = byte

10010101

Num of bits

64-bit

0000.....0001

64 digits

8-bit number

128 64 32 16 8 4 2 1

00000001

00010000 = 16

Utf-8 → ASCII

1 byte

10000001

1 byte

128	64	32	16	8	4	2	1
0	1	0	0	0	0	0	1
0	1	1	0	0	0	0	1

Optimising for memory

Smaller data types
Reduce number of dfs
Modify dfs inplace (where possible)

avoid and Think about loops
^
nested

Time Series
(Sarima)
pdq PDQ's

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data structures
np arrays are fastest
way to do maths

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make use of anything
that uses C

If using Pytorch or
Tensorflow,
See about using your GPU