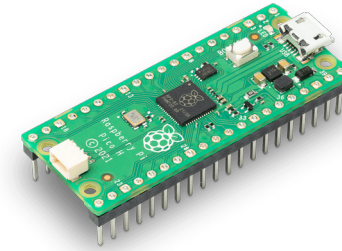**Instead of**
artificial intelligence,
let's talk about math and statistics!

Instead of
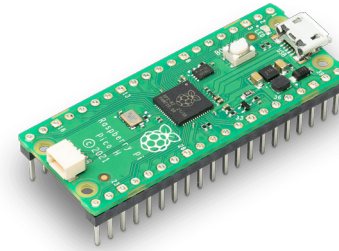# artificial intelligence,
let's talk about math and statistics!

Instead of
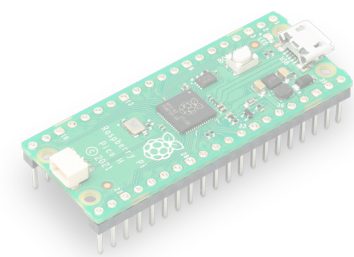# artificial intelligence,
let's talk about math and statistics!

Raspberry Pi Pico
* 133 MHZ * 264 KB RAM * 2 MB FLASH

Instead of
artificial intelligence,
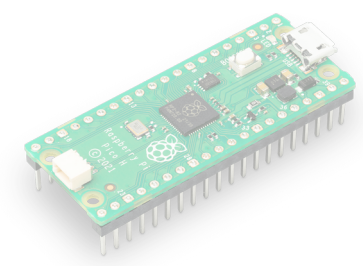### let's talk about math and statistics!

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DIABETES DATENSATZ

Pregnancies	Glucose	BloodPressure	SkinThickness	Insulin	BMI	DiabetesPedigreeFunction	Age	Outcome
6	148	72	35	0	33.6	627	50	1
1	85	66	29	0	26.6	351	31	0
8	183	64	0	0	23.3	672	32	1
1	89	66	23	94	28.1	167	21	0
0	137	40	35	168	43.1	2288	33	1
5	116	74	0	0	25.6	201	30	0
3	78	50	32	88	31	248	26	1
10	115	0	0	0	35.3	134	29	0
2	197	70	45	543	30.5	158	53	1
8	125	96	0	0	0	232	54	1
4	110	92	0	0	37.6	191	30	0

JOHNS HOPKINS
U N I V E R S I T Y

artificial intelligence,
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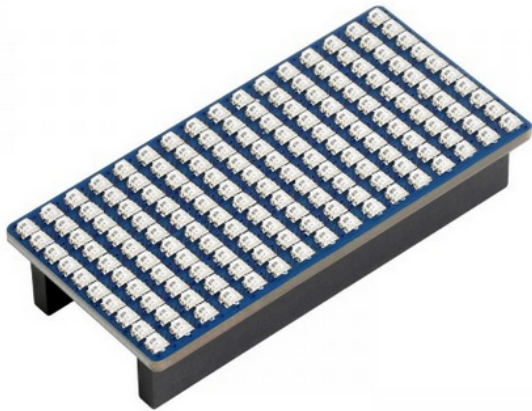**DIABETES DATENSATZ**

Pregnancies	Glucose	BloodPressure	SkinThickness	Insulin	BMI	DiabetesPedigreeFunction	Age	Outcome
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4	110	92	0	0	37.6	191	30	0

NEURONALE NETZE

A) **3 Layer** mit insg. **6 Neuronen**
B) **4 Layer** mit insg. **8 Neuronen**

Visualisierung mittels RGB Matrix:

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Raspberry Pi Pico
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DIABETES DATENSATZ
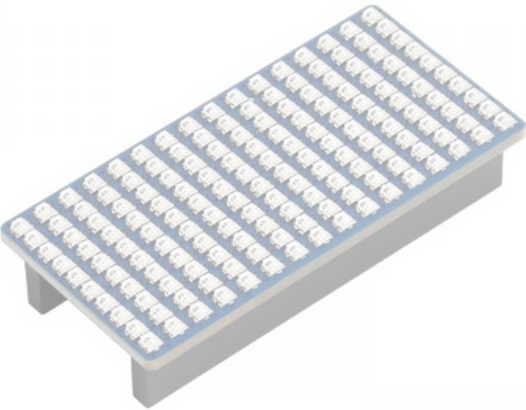
Pregnancies	Glucose	BloodPressure	SkinThickness	Insulin	BMI	DiabetesPedigreeFunction	Age	Outcome
6	148	72	35	0	33.6	627	50	1
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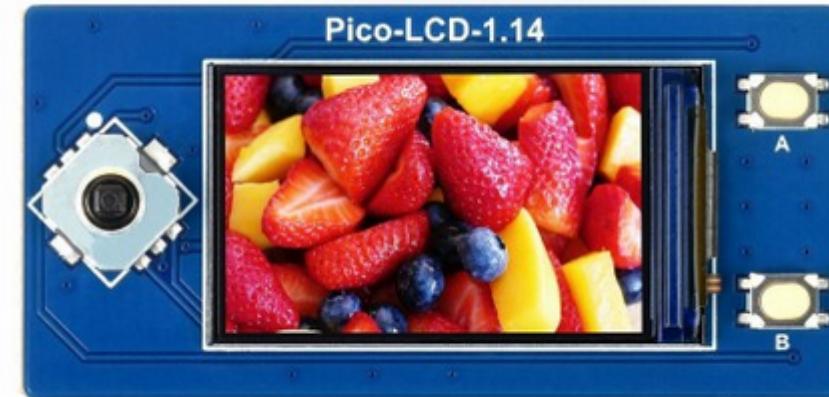*Visualisierung mittels RGB Matrix:*

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EINFACHE BEDIENUNG

Instead of
artificial intelligence,
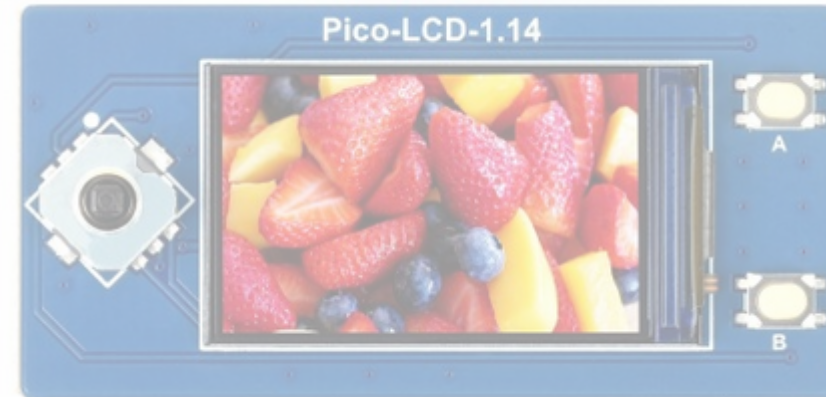let's talk about math and statistics!
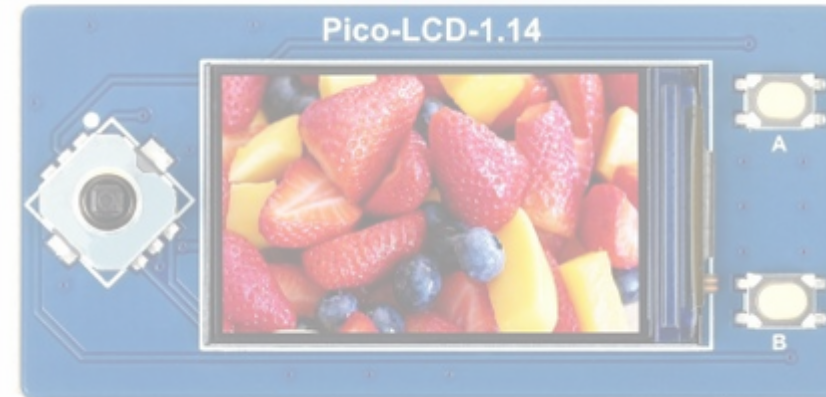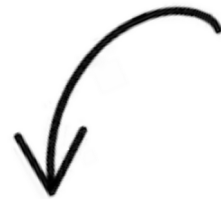
EINFACHE BEDIENUNG

[A] 6 NEURONS / TRAIN

Pico-LCD-1.14

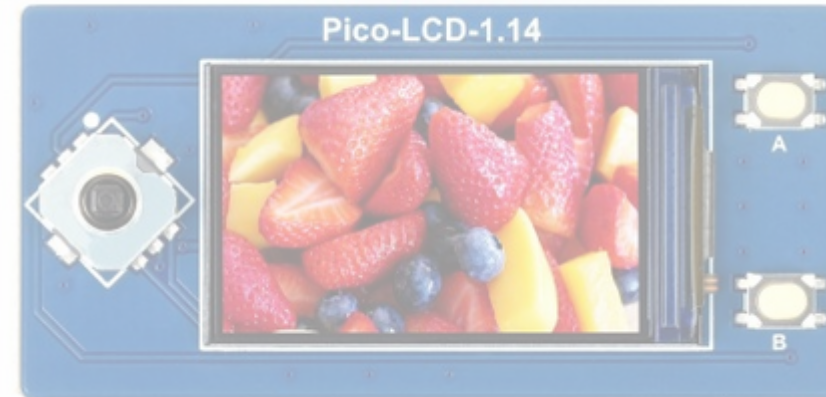# artificial intelligence,

let's talk about math and statistics!

[A] 6 NEURONS / TRAIN

EINFACHE BEDIENUNG

Pico-LCD-1.14

[B] 8 NEURONS / ABOUT

artificial intelligence,

let's talk about math and statistics!

[A] 6 NEURONS / TRAIN

EINFACHE BEDIENUNG

Pico-LCD-1.14

[PUSH] REBOOT

[B] 8 NEURONS / ABOUT

artificial intelligence,

let's talk about math and statistics!

EINFACHE BEDIENUNG

Pico-LCD-1.14

[A] 6 NEURONS / TRAIN

[PUSH] REBOOT

[B] 8 NEURONS / ABOUT

TRAINING / VALIDIERUNG

```
Predictions with 8 neurons:
[[0.9730927, 0.1017353, 0.06202335, 0.4572562, 0.1103432, 0.05771559, 0.7471498, 0.8194352, 0.2919307, 0.3960132, 0.5808029, 0.9760417, 0.2294444, 0.165619
5, 0.06917126, 0.1052484, 0.8611004, 0.05771559, 0.3303518, 0.2326374, 0.71048, 0.543425, 0.2801571, 0.1010159, 0.0674166, 0.4290749, 0.05771559, 0.9254408
, 0.09566004, 0.09817339, 0.2696396, 0.2201122, 0.1122275, 0.4726285, 0.08007254, 0.818479, 0.4317611, 0.06139551, 0.3807044]]
[1, 0, 0, 0, 0, 0, 1, 1, 0, 0, 1, 1, 0, 0, 0, 0, 1, 0, 0, 0, 1, 1, 0, 0, 0, 0, 0, 1, 0, 0, 0, 0, 0, 0, 0, 1, 0, 0, 0]
Accuracy: 0.9230769
Confusion Matrix:
[27, 1]
[2, 9]
```

Instead of

artificial intelligence,

let's talk about math and statistics!

EINFACHE BEDIENUNG

Pico-LCD-1.14

[A] 6 NEURONS / TRAIN

[PUSH] REBOOT

[B] 8 NEURONS / ABOUT

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[1, 0, 0, 0, 0, 0, 1, 1, 0, 0, 1, 1, 0, 0, 0, 0, 1, 0, 0, 0, 1, 1, 0, 0, 0, 0, 0, 1, 0, 0, 0, 0, 0, 0, 0, 1, 0, 0, 0]
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Confusion Matrix:
[27, 1]
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```