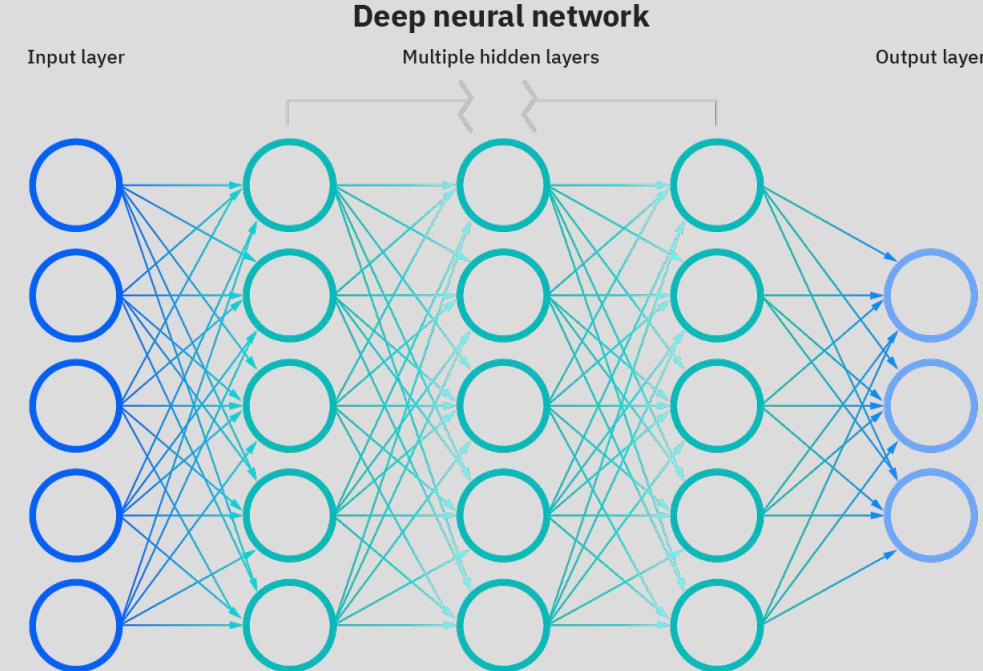


AI:



- Based on Neural networks
- Inspired by the Brain
- Advanced problem solver

Brain:

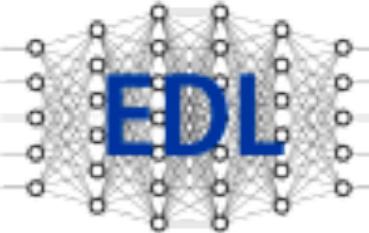
- Binary spikes (0/1) instead of real-value numbers
- Energy efficient
- Flexible and event-driven

Why we do that:

- Modern AI uses a lot of energy
- SNN/neuromorphic device
- AI with small battery
- Always on Apps

A Brain on A Phone

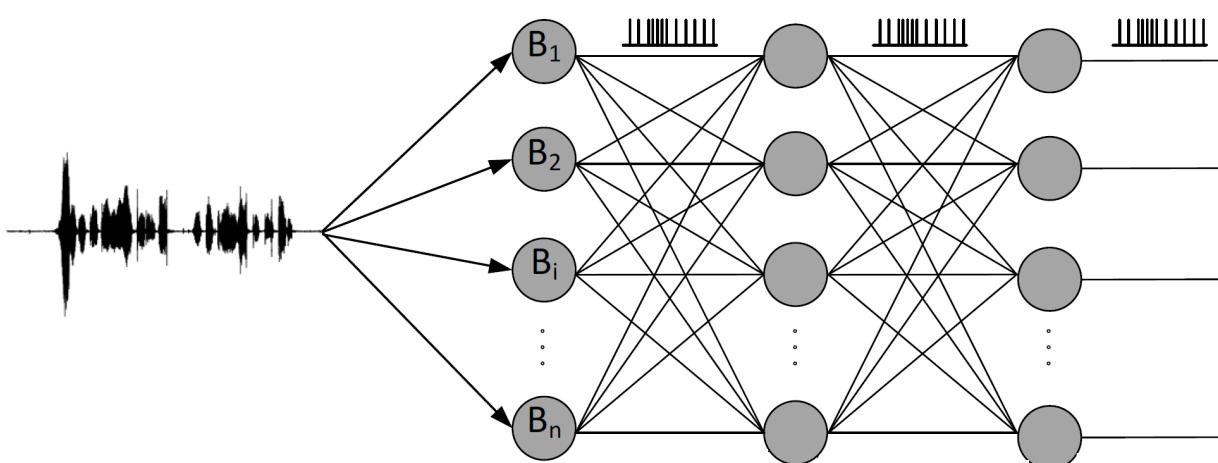
Machine Learning



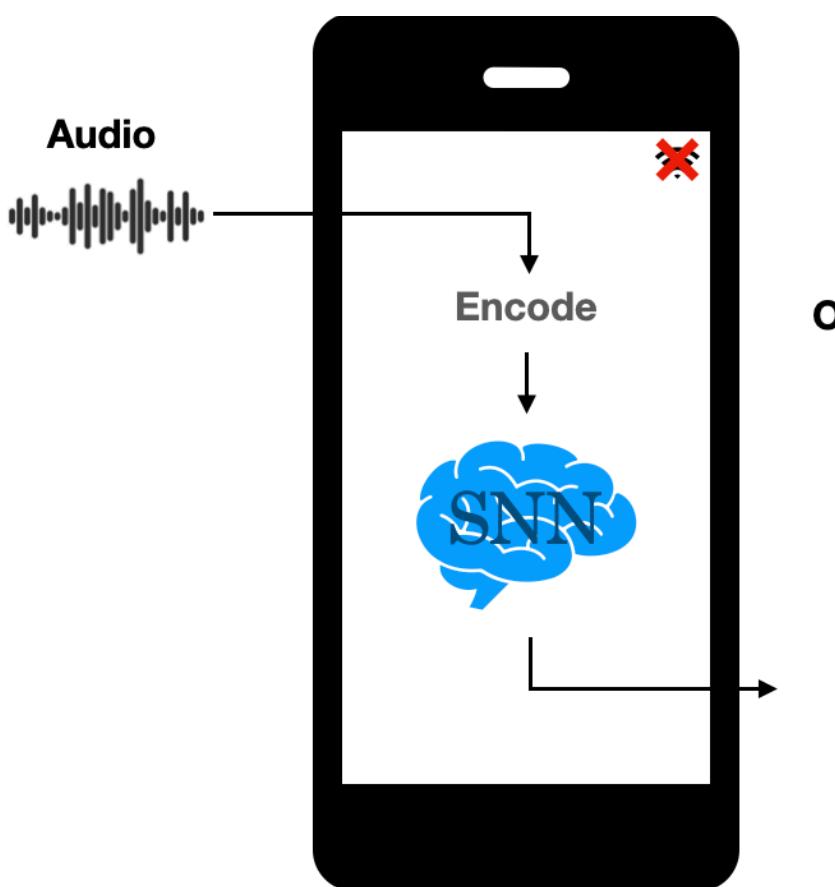
BY Bojian Yin
Sander Bohte

How does it work:

- Always on Speech recognition on the phone



- Key-Words spotting task
- Spiking neural network with 256 neurons
- End-to-End solution
- Privacy- friendly
- Energy-efficient



In the future:

- Always-on networks On Tiny-Chips
- Health monitoring
- Brain-Computer Interface
- Drones
- Intelligent Toys
- ...

