NEST Desktop

Simulation and AI with Spiking Neural Networks made easy
A Network??
A Network!
NEST Desktop – Intro

Intuitive front-end for simulations and visualizations
For simulation in neuroscience and AI (in progress)
Front-end app as a cloud service
Training courses
Licenses for course materials
Two Use Cases

1) SNNs for AI/Machine Learning (in progress)
2) SNNs for Simulation
1) SNNs for AI/Machine Learning – Problems

BBC News

Health

New superbug-killing antibiotic discovered using AI

BBC, 25.05.2023

New artificial intelligence tool can accurately identify cancer

Explain: algorithm performs more efficiently and effectively than current methods, according to a study

The Guardian, 30.04.2023

AI Power Consumption Exploding

Exponential increase is not sustainable. But where is it all going?

AUGUST 15TH, 2022 - BY BRIAN BAILEY

Semiconductor Engineering

Artificial Intelligence Is Booming—So Is Its Carbon Footprint

Greater transparency on emissions could also bring more scrutiny

Bloomberg, 09.03.2023
1) SNNs for AI/Machine Learning – Solution

Spiking neural networks (SNN) offer high efficiency
Graphical model and network editing lowers the barrier massively
Course and training offers allow fast-track training
Using industry standards
Total deep learning market: €49.6 Billion in 2022

PyTorch   Norse
2) SNNs for Simulation – Problem

Students in biology/neurobiology often have low programming skills
Visualizing models from source code is very difficult
Universities / Institutes often do not have enough resources to teach specialization courses for students / PhDs in this field
2) SNNs for Simulation – Solution

Intuitive Web UI service (cloud subscription)

Visual network editing → simulation without coding

Training course and course material licenses

Already in usage (Germany, Czech Republic)

Market: > 200 universities in EU alone
Call to Action

We are looking for 24 months financing to fully implement the AI integration and gather first customers for the simulation courses.
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