

FACULTY MENTOR Kuzum, Duygu

PROJECT TITLE Modeling Brain Circuits

PROJECT DESCRIPTION

Neuroelectronics lab is working on developing neurotechnologies which can help understanding the information processing in the brain and building brain-inspired devices and circuits for implementation of energy-efficient and robust learning in hardware. Part of our research focuses on developing computational models for simulating brain circuits. We use biophysical spiking neural network models or neural network algorithms to investigate how data is encoded and processed in the brain. We currently have a model for a brain circuit, which generates the specific oscillations for memory consolidation. The selected intern will work on part of improving the model and modifying it to achieve data transfer between different networks.

INTERNS NEEDED 2 MS Students OR 2 Undergrad Students

PREREQUISITES

Candidate is expected to have basic knowledge of signal processing, neural networks and strong experience with Python and MATLAB.

