# Christos Sourmpis

### Education

## 2019-Present Ph.D. in Computational Neuroscience, EPFL, Lausanne, Switzerland.

- o Ph.D. Advisors: Prof. Wulfram Gerstner and Prof. Carl Petersen
- Research: Data-constrained spiking recurrent neural network for sensor-to-motor pathways.
- Collaborated on experimental data analysis pipelines.
- 2013–2018 **Diploma in Electrical and Computer Engineering**, *University of Patras*, Patras, Greece.

GPA: 9.13/10, Ranked first of my year

2017–2017 Erasmus Exchange Program, Graz University of Technology, Graz, Austria.

# Industry Experience

- 2019 **R&D Engineer**, *SynSense Neuromorphic Hardware Company*, Zurich, Switzerland. Continued work on the same project with a focus on hardware constraints. Investigated other methods for speech processing, e.g., Self-Organized Map with Tempotron inference.
- 2018–2019 **Internship**, *SynSense Neuromorphic Hardware Company*, Zurich, Switzerland. Research on audio signal to spikes conversion methods (silicon cochlea models). Developed an end-to-end pipeline system for keyword detection using a static spiking neural network reservoir.

### **Publications**

- 2023 **Sourmpis C**, Petersen CCH, Gerstner W, & Bellec G. Trial matching: capturing variability with data-constrained spiking neural networks. Thirty-Seventh Conference on Neural Information Processing Systems (NeurIPS)
- 2023 Oryshchuk A, **Sourmpis C**, ..., Petersen CCH & Crochet S. Distributed and specific encoding of sensory, motor and decision information in the mouse neocortex during goal-directed behavior. Accepted in Cell Reports.
- 2023 Bech P, Crochet S, ... Petersen CCH & **Sourmpis C**. Striatal Dopamine Signals and Reward Learning. Function.

Languages

Greek Native

English Advanced proficiency

IELTS 7.5/9 - C1