

School of Computer Science and Information Technology  
Lucerne University of Applied Sciences and Arts (Switzerland)

THESIS TITLE  
subtitle

BACHELOR THESIS

presented to School of Computer Science and Information Technology of Lucerne  
University of Applied Sciences and Arts (Switzerland) in consideration for the award of  
the academic grade of *Bachelor in Computer Science*.

by

**Author Name**

from

Lucerne (Switzerland)

# Declaration

Bachelor Thesis at Lucerne University of Applied Sciences  
and Arts  
School of Computer Science and Information Technology

Title of Bachelor Thesis: Thesis Title  
Name of Student: Author Name  
Degree Program: Bachelor Informatik  
Year of Graduation: 2024  
Main Advisor: Prof. Dr. Name Surname  
External Expert: Expert Name  
Industry partner/provider: Company Name

## Code/Thesis Classification

- Public (Standard)
- Private

## Declaration

I hereby declare that I have completed this thesis alone and without any unauthorized or external help. I further declare that all the sources, references, literature and any other associated resources have been correctly and appropriately cited and referenced. The confidentiality of the project provider (industry partner) as well as the intellectual property rights of the Lucerne University of Applied Sciences and Arts have been fully and entirely respected in completion of this thesis.

Place/Date, Signature \_\_\_\_\_

## Submission of the Thesis to the Portfolio Database

Confirmation by the student

I hereby confirm that this bachelor thesis has been correctly uploaded to the Portfolio Database in line with the code of practice of the University. I rescind all responsibility and authorization after upload so that no changes or amendments to the document may be undertaken.

Place/Date, Signature \_\_\_\_\_

## Expression of thanks and gratitude

Thanks to my family, relatives and friends for all the support given to finish this thesis.

Author Name, 2024

*Intellectual property of the degree programs of the Lucerne University of Applied Sciences and Arts, FH Zentralschweiz, in accordance with Student Regulations: Studienordnung*

# Summary

The content of your thesis in brief.

# Contents

1	Main Content	1
---	--------------	---

# List of Figures

# List of Tables

# Glossary

**Cognitive computing** A set of theories and techniques to let computers to mimic the mechanisms of the human brain. It provides the basis for the practical application of cognition and learning theories to computer systems with the use of soft computing methods..

**Computing with words and perceptions** A process allowing to perform computations on words, phrases, and prepositions drawn from a natural language, which describe perceptions of people towards different aspects of the context they are surrounded by. This is based on the fuzzy logic toolbox and allows to represent and perform operations on the meaning of words.. 1

**Convolutional neural network** A class of neural networks commonly used for image analysis that is relying on convolution operations to extract features from data..

**Fuzzy logic** An extension of classical binary logic, where the truth value of propositions can not only be completely true or false, but also partially true and false to varying degree.. 1

**Perceptual computing** A set of theories and techniques allowing computers to compute and reason with perceptions and imprecise data..



# Acronyms

**HSLU** Lucerne University of Applied Sciences and Arts. 1

**NN** Neural Network. 1

# Chapter 1

## Main Content

This is a template of Lucerne University of Applied Sciences and Arts (HSLU) and then. This section usually comprises different chapters and subchapters explaining various concepts and referring to external results [1]. Content may also refer to special expressions such as that has to be explained in a separate section. Here we also have Fuzzy logic enough space and Computing with words and perceptions to discuss the concept of Neural Network (NN) and so on.

# Bibliography

- [1] R. Christen, L. Mazzola, A. Denzler, and E. Portmann, “Exogenous Data for Load Forecasting: A Review;” in *Proceedings of the 12th International Joint Conference on Computational Intelligence*, (Budapest, Hungary), pp. 489–500, SCITEPRESS - Science and Technology Publications, 2020.