HSLU Lucerne University of Applied Sciences and Arts

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 Artsin consideration for the award of the academic grade of *Bachelor in Study Program*.

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 in Study Program
Year of Graduation:	2025
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 work alone, independently, and without any unauthorized or external help. All cited sources, literature, and aids (in particular artificial intelligence or other instruments) have been used in compliance with copyright and data protection laws, and passages taken verbatim or in substance have been identified as such. The client's confidentiality interests have been preserved, and the intellectual property rights of the Lucerne University of Applied Sciences and Arts have been respected.

Place/Date, Signature _____

Expression of thanks and gratitute

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

Author Name, 2025

Summary

The content of your thesis in brief.

Contents

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.

1.1 First Section

Followed by a brief introduction, the section may comprise several subsections explaining various concepts and refering to external results [1].

1.1.1 First Subsection

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.

Chapter 2

Research Questions

A relevant part of every scientific thesis build the formulation and declaration of research questions. These should be kept as clear and straightforward as possible, despite as preceise as required for scientific analysis. In this thesis, research questions can properly listed with the command:

$$\resq\{number\}\{question\}$$

RQ1. How many research questions will be answered in this thesis?

RQ2. Does there exist an easier way to declare research questions?

RQ3. Is it feasible to answer all these questions?

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.