**Implementation of a Basic Neural Network in C**

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Table of contents

[1 Introduction 5](#_Toc182400102)

[1.1 Project Objective 5](#_Toc182400103)

# 1 Introduction

This project implements a basic neural network using the C programming language. It is well known that compiled programming languages (such as C, C#, or Rust) are faster than interpreted ones (Python, PHP, JavaScript…), and this speed difference is more noticeable in programs that require significant computational calculations. However, in fields such as Artificial Intelligence, where techniques like machine learning involve complex computational tasks, Python is the most widely used language. This is due to the availability of powerful libraries and frameworks, even though Python itself may not always be the fastest language. Specifically, this project aims to provide a deep understanding of how neural networks work at a lower level, using C as a low-level language to learn the fundamentals of their structure and training process.

## Project Objective

The goal of this project is to design and implement a basic artificial neural network from scratch. The primary objective is to explore and understand the core concepts of neural networks, in order to reflect on the possibility of programming faster neural networks.