## Software

  An environment for neural network research, design, and simulation within MATLAB.

- **Netlab** - [http://www.ncrg.aston.ac.uk/netlab/](http://www.ncrg.aston.ac.uk/netlab/)
  A library of MATLAB functions for simulating neural network algorithms based on the book Neural Networks for Pattern Recognition by Chris Bishop.

- **Torch** - [http://www.torch.ch](http://www.torch.ch)
  A library of state-of-the-art machine learning algorithms. Licensed under the GPL, and designed for Unix and Linux environments.

- **Joone** - [http://www.jooneworld.com](http://www.jooneworld.com)
  Java Object Oriented Neural Engine is a free java neural net framework. Can be extended writing new modules.

  A standard environment for evaluating the performance of learning methods. Includes a number of datasets and an archive of learning methods.

- **NeuroSolutions** - [http://www.neurosolutions.com](http://www.neurosolutions.com)
  Icon-based neural network development software. Supports several types of networks and training algorithms. Trial version is available.

  Neural network software for technical analysis and stock market trading. Demo is available.

- **Pythia** - [http://www.runitime.org/pythia.htm](http://www.runitime.org/pythia.htm)

- **FANN** - [http://fann.sourceforge.net](http://fann.sourceforge.net)
  Neural network library implemented in ANSI C. Creates multilayer feedforward networks with support for both fully connected and sparse connected networks. Supports execution in fixed point, for fast execution on systems like the iPAQ.

- **Alyuda NeuroIntelligence** - [http://www.alyuda.com/](http://www.alyuda.com/)
  Neural network software and Excel add-ins for forecasting and data analysis. Supports several algorithms. Trial versions are available.

- **NeuralWorks** - [http://www.neuralware.com/products.jsp](http://www.neuralware.com/products.jsp)
  Professional II/PLUS is a neural network development environment. Available for Windows and Unix. Predict is a neural network tool for solving prediction and classification problems. Available for Unix or as an Excel add-in for Windows.

- **NNSYSID Toolbox** - [http://kalman.iau.dtu.dk/research/control/nnsysid.html](http://kalman.iau.dtu.dk/research/control/nnsysid.html)
  A set of MATLAB tools for neural network based identification of nonlinear dynamic systems.

- **Stuttgart Neural Network Simulator** - [http://www-ra.informatik.uni-tuebingen.de/SNNS/](http://www-ra.informatik.uni-tuebingen.de/SNNS/)
  Description of the features of the Unix and X11 based simulator, information about how to obtain the SNNS sources and an online user manual.
A free java-based neural network simulation kit.

EasyNN - http://www.easynn.com
Neural network software for Windows with numeric, text and image functions.

PDP++ - http://www.cnbc.cmu.edu/PDP++/PDP++ html
A neural-network simulation system based on C++. This is the next generation of the PDP software originally released with McClelland and Rumelhart's PDP book.

Neural Networks at your Fingertips - http://www.neural-networks-at-your-fingertips.com/
Neural network simulators for eight different network architectures with embedded example applications coded in portable ANSI C.

The Neural Simulation Language - http://www.neuralsimulationlanguage.org
A simulation system for modeling large-scale general neural networks.

NeuroXL - http://www.neuroxl.com

Simulates MLP, RMLP and Cascade-Correlation models with dynamic size adjustment algorithms. Includes various training patterns, error and activation functions.

NeuroDesigner - http://www.neurodesigner.com
A family of Java based computer products for neural network applications.

Neural network freeware for building prediction and classification models in Excel. Uses backpropagation. Can handle missing values and categorical data.

Neural Network Leaves Recognition - http://damato.light-speed.de/lrecog/
A neural network based system to recognize leaves written in Java. A Java-Applet is also available.

Neural Network Framework - http://www.nnfw.org
Class framework to create neural networks with arbitrary topology and mixed type of neurons, developed for research purpose. Includes technical information and discussion mailing-list.

Neuromat - http://www.neuromat.com
Model Manager for development of bayesian neural networks.

Tiberius - http://www.philbrierley.com
Neural network for classification and regression problems. Supports ODBC and Excel.

Java sources for temporal difference learning Random Walk and Tic Tac Toe.

Fann Neural Network for Mathematica - http://www.geocities.com/freegoldbar/
Free interactive environment for Mathematica includes pattern recognition and time-series prediction samples.

Artificial Intelligence Recurrent Asymmetric Networks (NARIA) - http://naria.karasuma.net
Open project about simulating human-like intelligence with the help of neural networks.

Amygdala - http://amygdala.sourceforge.net/
Open-source software for simulating spiking neural networks, written in C++.


NeuroBox - http://www.cdmnet.net/projects/neuro/
An open-source .NET OOP library project written in C# to generate, propagate and train complex neural feedforward networks.

Penguinwerks - http://www.penguinwerks.com
Open source neural network library to create multi-layer perceptrons. Written in C#.

Java library - http://aydingurel.brinkster.net/neural
Open source Java implementation of feed-forward neural nets: multi-layer perceptrons, generalized and modular feed-forward networks.
LTF-C neural networks simulator for solving classification problems.

ECANSE - http://www.siemens.at/ecanse/
Provides a development environment for the design, simulation and testing of neural networks and their applications up to the production of an optimized software solution.

Lightweight Neural Network++ - http://lwneuralnetplus.sourceforge.net/
Free software project. Implements a general feed forward neural network and some training techniques.

libF2N2 - http://libf2n2.sourceforge.net/
An open source neural network library. Implements feedforward neural network classes in multiple languages including C++ and PHP.

Neuropilot Project - http://freespace.virgin.net/michael.fairbank/neuropilot/
Showcases a java applet demo of a trained neural network piloting a lunar-lander type spacecraft over landscapes of various complexity.

Forecasting and estimation software based on neural networks. Demo version available.

Cortex - http://cortex.snowcron.com
A back propagation neural network application.

Neurak - http://www.gameroom.com/quaternions/
A freeware environment for development and application of artificial neural networks.

Neural network COM+ components and development environment for forecasting and data analysis. Supports several algorithms. Trial version is available.

Genesis - http://www.genesis-sim.org/GENESIS/
A platform for simulating complex neural systems.

Xerion - http://www.cs.toronto.edu/~xerion/
Neural network simulator based on C and Tcl. Made up of C libraries to build networks, and pre-built simulators.