



Golang Machine Learning

Share on



Written by Chris Lazari

on Apr 25, 2022 - 6 min read

Start the simple hiring process with Upstack today.

Golang (or Go) is a popular statically typed, compiled software development language. Designed and first introduced in 2009, Go is open-source and offers several capabilities making it ideal for creating system-level services. Built as the twenty-first century C programming language, Golang has many features that help developers build solutions. Error-checking, built-in testing, and automated documentation are just some of the many helpful components Go offers.



people work, learn, and communicate. Cloud computing, social media, mobility, and the exponential rise of Big Data have become core technologies that fuel the modern information economy. Together they have created a platform that has generated a vast amount of data. In the [past ten years](#) alone, the world has seen an exponential increase in the quantity and quality of information created, copied, captured, and consumed. Today's amount of data has also increased the building and adoption of [Artificial Intelligence \(AI\)](#) and Machine Learning (ML) solutions. As these technologies rely on vast amounts of information to build accurate models, the data created by these core technology waves have spawned the AI innovation we see today.

Golang Machine Learning

Data scientists and AI innovators have created various models to harness the power of Machine Learning. Developers have leveraged these models to build software libraries that you can leverage to assemble a Machine Learning solution. Go, like [Python](#) and [Java](#), has several libraries you can utilize for Machine Learning. However, [Go is faster than Python](#). It also has several benefits like [ease of use, efficiency, and concurrency](#), making it better than Java in specific scenarios. The bottom line is that you can use Go to build robust, scalable Machine Learning solutions.

Golang Machine Learning Libraries

Go offers developers several Machine Learning libraries they can incorporate into their solutions. Combined with Go's features, these



GoLearn

[GoLearn](#) offers the ease of simplicity with the power of customization. This Machine Learning library implements its interfaces in the same manner as Python's [Scikit-Learn](#). In addition, with helper functions for test-splitting and cross-validation, GoLearn provides the relevant resources developers need to manage their data integrity.

The library contains a combination of C++ and Golang code. However, native Go code is the predominant language, with C++ only used for the library's linear model. This Golang support enables developers to interact with many components directly, resulting in faster and more efficient code.

Gorgonia

[Gorgonia](#) is a Machine Learning graph computation-based library. It is built for performance and can scale across multiple servers. It also provides a platform for the exploration of non-standard deep-learning and neural network solutions. Some of the features it offers include neo-Hebbian learning, corner-cutting, and evolutionary algorithms.

Built on the Go platform, Gorgonia offers a seamless environment for Golang developers. The library's creators designed the platform to bridge the gap between the two processes of a typical Machine Learning solution, the experimental and deployment phases. Standard ML solutions use Python for the first stage and then refactor the code into C++ or something similar for performance. As Go is faster than Python and built on the same



eaopt

[eaopt](#) is another Machine Learning library written in Go. This solution leverages evolutionary optimization algorithms that minimize or maximize a function without using gradient information. eaopt offers several evolutionary algorithms that utilize a consistent API. This capability means that developers can write a single Machine Learning use case in Go and seamlessly integrate it with all the algorithms in the library.

This Go Machine Learning library also offers speciation and migration procedures. In addition, it provides native support for familiar genetic operators such as mutation, crossover, and selection. eaopt also offers parallel function evaluation that developers can use to improve the performance of their solution.

GoMind

[GoMind](#) is a neural network Machine Learning library. Written entirely in Go, this platform learns from a training set that uses a back-propagation algorithm. It supports activation functions such as Sigmoid, ReLU, and Leaky ReLU and can estimate the ideal number of hidden layer neurons.

GoMind does not have the depth and features of the more popular Machine Learning platforms like Scikit-Learn or [Tensorflow](#). However, it is a sound library that offers a simple platform for training. Consequently, it allows Go developers to start Machine Learning without worrying about creating Python models and binding them with C or C++.



structure enable developers to integrate Machine Learning directly into their solutions. It offers several ML models, including generalized linear models, perception, clustering, and text classification.

goml also provides a set of features that simplify the process of integrating a Machine Learning solution. With modular source code, extensive documentation, comprehensive tests, and a clean and expressive code base, goml provides online and reactive learning functionality.

Goga

[Goga](#) is a genetic Machine Learning library created in Go. Its features allow developers to inject different behaviors into the main genetic algorithm object. Using three injectable components simulators, selectors, and mater, it offers the functionality needed to solve genome-related compatibility issues.

The library comes with several features that help researchers integrate its functionality into their solution, including a string and image matcher. In addition, it can take multiple inputs and present a correlated solution that depicts the union of the various input objects.

Golang Machine Learning Benefits

Software developers, data scientists, and engineers building Machine Learning solutions have the option of using several languages to achieve their goals. However, Go has several capabilities that make it an ideal candidate to build the next ML solution. Go's speed and performance are



platforms, and offers several Machine Learning libraries.

• • •

Leading companies trust [Upstack](#) to hire the golang experts they need, exactly when they need them! What are you waiting for? Get in touch today! Learn why [Upstack is by far the best toptal alternative](#).

You may also be interested in

Productivity

3 reasons your business will succeed in 2020 by hiring remote teams

"The future of work is here—Remote work!\nOne of the benefits of hiring remote teams is access to the best talent worldwide. Some companies are already

by Alexandra Gavrilă
3 min read

Read more



How COVID-19 Is Changing The Skills Employers Need

Even before the current crisis, changing technologies and new ways of working are confusing the skills workers need to do their jobs. Kick - start-up

by Sheetal Munjal
5 min read

[Read more](#)

Tech

Object Oriented Programming with C# - Introduction

1. Topics of discussion In this tutorial, we kick start our Object-Oriented Programming adventure. So, let's have some fun. 2. Course topics Hello and welcome to the first

by Andrei Moraru
3 min read

[Read more](#)

Company

HIRE TOP DEVELOPERS

[Hire a Android Developer](#)

[Hire a Angular Developer](#)



Hire a Full Stack Developer

HIRE TOP DEVELOPERS

Hire a iOS Developer

Hire a Java Developer

Hire a Magento Developer

Hire a .Net Developer

Hire a Node.js Developer

HIRE TOP DEVELOPERS

Hire a PHP Developer

Hire a Python Developer

Hire a React.js Developer

Hire a Ruby on Rails Developer

Hire a Wordpress Developer

Contact

Upstack Technologies, Inc.

26 Broadway

New York, NY 10004



glassdoor®

5.0 | ★★★★★



©2022 Upstack Technologies, Inc

Privacy Policy • Terms of Service