## Introduction

This is a direct port of the <u>chia bls typescript library</u>. Coding style and naming have been converted to C# conventions but otherwise it is very similar in API.

All of the unit tests from the original project have been ported and pass.

chia and its logo are the registered trademark or trademark of Chia Network, Inc. in the United States and worldwide.

## **Getting Started**Sign and Verify a Message

```
using chia.dotnet.bls;
// https://www.nuget.org/packages/dotnetstandard-bip39/
using dotnetstandard_bip39;
const string MNEMONIC = "abandon abandon abandon";
const string MESSAGE = "hello world";
// create a secret key from a mnemonic
var bip39 = new BIP39();
var seed = bip39.MnemonicToSeedHex(MNEMONIC, "").HexStringToByteArray();
var sk = PrivateKey.FromSeed(seed);
// sign a message
var messageBytes = MESSAGE.ToBytes();
var signature = sk.Sign(messageBytes);
// verify the signature
var pk = sk.GetG1();
var result = pk.Verify(messageBytes, signature);
Console.WriteLine($"Signature is valid: {result}");
```