

## My Project

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# Chapter 1

## Class Index

### 1.1 Class List

Here are the classes, structs, unions and interfaces with brief descriptions:

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## Chapter 2

# Class Documentation

### 2.1 functions Class Reference

#### Public Member Functions

- double **Schwefel** (double \*X, int dimension)
- double **first\_De\_Jong** (double \*X, int dimension)
- double **Rosenbrock** (double \*X, int dimension)
- double **Rastrigin** (double \*X, int dimension)
- double **Griewangk** (double \*X, int dimension)
- double **Sine\_Envelope\_Sine\_Wave** (double \*X, int dimension)
- double **Stretched\_V\_Sine\_Wave** (double \*X, int dimension)
- double **Ackley\_One** (double \*X, int dimension)
- double **Ackley\_Two** (double \*X, int dimension)
- double **Egg\_Holder** (double \*X, int dimension)
- double **Rana** (double \*X, int dimension)
- double **Pathological** (double \*X, int dimension)
- double **Michalewicz** (double \*X, int dimension)
- double **Masters\_Cosine\_Wave** (double \*X, int dimension)
- double **Quartic** (double \*X, int dimension)
- double **Levy** (double \*X, int dimension)
- double **Step** (double \*X, int dimension)
- double **Alpine** (double \*X, int dimension)

The documentation for this class was generated from the following files:

- functions.h
- functions.cpp

### 2.2 matrix Class Reference

#### Public Member Functions

- **matrix** (int num\_rows, int num\_columns, int l\_b, int h\_b, mt19937 &mt\_rand)
- **matrix** (int num\_rows, int num\_columns)

### Public Attributes

- const int **num\_rows**
- const int **num\_columns**
- const int **l\_b**
- const int **h\_b**
- mt19937 **mt\_rand**
- double \*\* **mat**

The documentation for this class was generated from the following files:

- matrix.h
- matrix.cpp

## 2.3 rw\_input Struct Reference

### Public Attributes

- int **iterations**
- double \* **best\_solution**
- double **best\_fitness**

The documentation for this struct was generated from the following file:

- search\_functions.h

## 2.4 utilities Class Reference

### Public Member Functions

- double \* **str\_to\_tok** (char \*string, char \*delim, int num\_tokens)
- void **write\_to\_file** ([matrix](#) \*mat, string file\_name)
- int **get\_algorithm\_id** ()
- void **simulate** (int num\_dimensions, double \*dimensions, int num\_functions, double \*ranges, int sample\_size, int algorithm\_id, double delta, mt19937 &mt\_rand)

The documentation for this class was generated from the following files:

- utilities.h
- utilities.cpp



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