

# GARTER: A SMALL TO MEDIUM SIZED SNAKE

by

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# **Abstract**

Dynamic programming languages such as the Python Programming Language can be powerful tools for experienced developers due to their high productivity potential. Unfortunately, when learning, the error messages which they produce can seem arcane or arbitrary. Garter is a new language, based on the existing dynamic language Python, which aims to produce high quality error messages, and provide a comfortable learning environment for new developers, while exposing them to syntax and semantics which are used in the real world.

## Acknowledgements

Acknowledge some people here



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## Glossary

**AI** Artificial Intelligence.

**OpenCV** Open source Computer Vision library for C++ [\[1\]](#).

## List of Symbols

$\mu$       Average



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# Chapter 1

## Introduction

### 1.1 Motivation

Motivation

### 1.2 Problem Overview

Problem Overview

### 1.3 Thesis Contributions

The main contributions of this thesis are as follows:

- Contribution 1
- Contribution 2
- Contribution 3
- ...

## 1.4 Thesis Outline

The remainder of this thesis is organized as follows:

**Chapter 2, Background:** Background

**Chapter 3, Methods:** Methods

**Chapter 4, Results:** Results

**Chapter 5, Conclusions and Future Work:** Conclusions

## Chapter 2

### Background

Background

#### 2.1 Examples

text

##### 2.1.1 Sub Section

text

##### Sub Sub Section

text

Artificial Intelligence (AI)

thanks to OpenCV [\[1\]](#)

$$\mu_t = \alpha x + (1 - \alpha)\mu_{t-1} \tag{2.1}$$

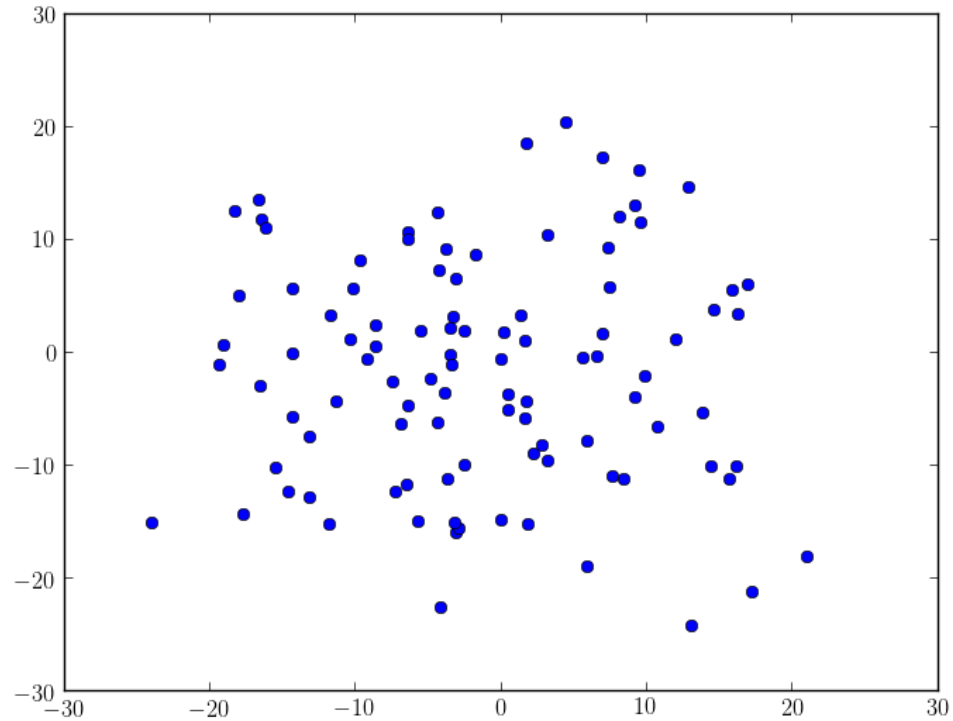


Figure 2.1: Test Plot

Listing 2.1: Test Plot Code

```
1 #!/usr/bin/env python
2
3 import numpy as np
4 import matplotlib
5 import matplotlib.pyplot as plt
6
7 matplotlib.rc('font', family='serif')
8 matplotlib.rc('font', serif='Computer Modern Roman')
9 matplotlib.rc('text', usetex=True)
10 matplotlib.rc('ps', usedistiller='xpdf')
11
12 fig = plt.figure()
13 ax = fig.add_subplot(111)
14 ax.plot(10*np.random.randn(100), 10*np.random.randn(100), 'o')
15
16 plt.savefig('testPlot.png', bbox_inches='tight')
17 plt.show()
```

---


Table 2.1: Test Table



## Chapter 3

### Methods

Methods

## Chapter 4

### Results

Results

## Chapter 5

### Conclusions and Future Work

#### 5.1 Summary of Conclusions

Conclusions

#### 5.2 Future Work

Future Work

## Bibliography

- [1] G. Bradski. The OpenCV Library. *Dr. Dobb's Journal of Software Tools*, 2000.