

# Some of Statistics

Quang Nguyen

2021-11-07



# Contents



# Chapter 1

## About this book

This is a book about some statistical concepts from the basics to perhaps more complicated models. This is a personal project and might contain mistakes. If this book helps you in anyway or if you want to make any corrections, please file a GitHub issue on the book repository.

### 1.1 Planned Chapters

#### **Section 1: Probability concepts**

- ☐ Basics of probability theory
- ☐ Random variables and expectations
- ☐ Multiple random variables
- ☐ Distributions functions

#### **Section 2: Hypothesis testing**

- ☐ Properties of random samples
- ☐ Principles of summary statistics
- ☐ Point and interval estimation
- ☐ Asymptotic properties

#### **Section 3: Regression modeling**

- ☐ Basic linear regression
- ☐ Generalized linear models
- ☐ Survival models
- ☐ Penalized regression

## 1.2 Future Ideas

- Bayesian statistics
- Machine Learning (for tabular data)

# Probability concepts

