

# AI Poker Tutorial

Max Chiswick

2024-05-28

# Table of contents

<b>Home</b>	<b>4</b>
<b>I Intro</b>	<b>5</b>
1 Intro and Poker Foundations	6
2 Poker and Trading	7
2.1 Test layer 2 . . . . .	7
2.1.1 Test layer 3 . . . . .	7
2.2 Test layer 2 again . . . . .	7
3 Python Foundations and Hello Poker Poker Math	8
<b>II Game Theory and Decision Making</b>	<b>9</b>
4 Game Theory Foundations	10
5 Decision Making Under Uncertainty	11
6 Toy Poker Games and Optimization	12
7 Game Trees	13
<b>III CFR and Solvers</b>	<b>14</b>
8 Counterfactual Regret Minimization (CFR)	15
9 Monte Carlo Methods	16
10 Solvers and Poker Strategy	17
<b>IV Machine Learning and Deep Learning</b>	<b>18</b>
11 Machine Learning Math	19

12 Machine Learning	20
13 Deep Learning	21
14 Reinforcement Learning	22
<b>V AI Poker Today</b>	<b>23</b>
15 AI Poker Agents	24
16 Recent AI Advances	25
<b>VI Advanced Topics</b>	<b>26</b>
17 Opponent Modeling	27
18 Transformers and LLMs with PokerGPT	28
19 AI Risks and Safety	29
<b>VII Projects</b>	<b>30</b>
20 Projects	31

# Home

This is a Quarto book.

To learn more about Quarto books visit <https://quarto.org/docs/books>.

# **Part I**

## **Intro**

# 1 Intro and Poker Foundations

This is a book created from markdown and executable code.

See Knuth (1984) for additional discussion of literate programming.

## 2 Poker and Trading

### 2.1 Test layer 2

#### 2.1.1 Test layer 3

### 2.2 Test layer 2 again

abc

abc abc

abcabc

abcabc

abcabc

abcabc

abcabc

abcabc

abcabc

abcabc

abcabc

abcabc

abcabc

abc

$E = mc^2$

# 3 Python Foundations and Hello Poker Poker Math

This is a book created from markdown and executable code.

See Knuth (1984) for additional discussion of literate programming.



## **Part II**

# **Game Theory and Decision Making**

## 4 Game Theory Foundations

This is a book created from markdown and executable code.

See Knuth (1984) for additional discussion of literate programming.

## 5 Decision Making Under Uncertainty

This is a book created from markdown and executable code.

See Knuth (1984) for additional discussion of literate programming.

## 6 Toy Poker Games and Optimization

This is a book created from markdown and executable code.

See Knuth (1984) for additional discussion of literate programming.

## 7 Game Trees

This is a book created from markdown and executable code.

See Knuth (1984) for additional discussion of literate programming.

**Part III**

**CFR and Solvers**

## 8 Counterfactual Regret Minimization (CFR)

This is a book created from markdown and executable code.

See Knuth (1984) for additional discussion of literate programming.

## 9 Monte Carlo Methods

This is a book created from markdown and executable code.

See Knuth (1984) for additional discussion of literate programming.



## 10 Solvers and Poker Strategy

This is a book created from markdown and executable code.

See Knuth (1984) for additional discussion of literate programming.

## **Part IV**

# **Machine Learning and Deep Learning**

# 11 Machine Learning Math

This is a book created from markdown and executable code.

See Knuth (1984) for additional discussion of literate programming.

## 12 Machine Learning

This is a book created from markdown and executable code.

See Knuth (1984) for additional discussion of literate programming.

# 13 Deep Learning

This is a book created from markdown and executable code.

See Knuth (1984) for additional discussion of literate programming.

# 14 Reinforcement Learning

This is a book created from markdown and executable code.

See Knuth (1984) for additional discussion of literate programming.

**Part V**

**AI Poker Today**

# 15 AI Poker Agents

This is a book created from markdown and executable code.

See Knuth (1984) for additional discussion of literate programming.



## 16 Recent AI Advances

This is a book created from markdown and executable code.

See Knuth (1984) for additional discussion of literate programming.

**Part VI**

**Advanced Topics**

# 17 Opponent Modeling

This is a book created from markdown and executable code.

See Knuth (1984) for additional discussion of literate programming.

# 18 Transformers and LLMs with PokerGPT

This is a book created from markdown and executable code.

See Knuth (1984) for additional discussion of literate programming.

## 19 AI Risks and Safety

This is a book created from markdown and executable code.

See Knuth (1984) for additional discussion of literate programming.

# **Part VII**

## **Projects**

## 20 Projects

This is a book created from markdown and executable code.

See Knuth (1984) for additional discussion of literate programming.

Knuth, Donald E. 1984. “Literate Programming.” *Comput. J.* 27 (2): 97–111. <https://doi.org/10.1093/comjnl/27.2.97>.