# Weka

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# Outline

1. **What is Weka?**
2. **Merits of Weka**
3. **Comparison of Weka with machine learning in Python/R**
4. **Weka tutorial design**

# What is Weka?

- **It is a collection of machine-learning algorithms for data mining tasks.**

- **It contains tools for data preparation, classification, regression, clustering, association rules mining, and visualization.**

- **It is open-source software issued under the GNU General Public License, developed at the University of Waikato, New Zealand**
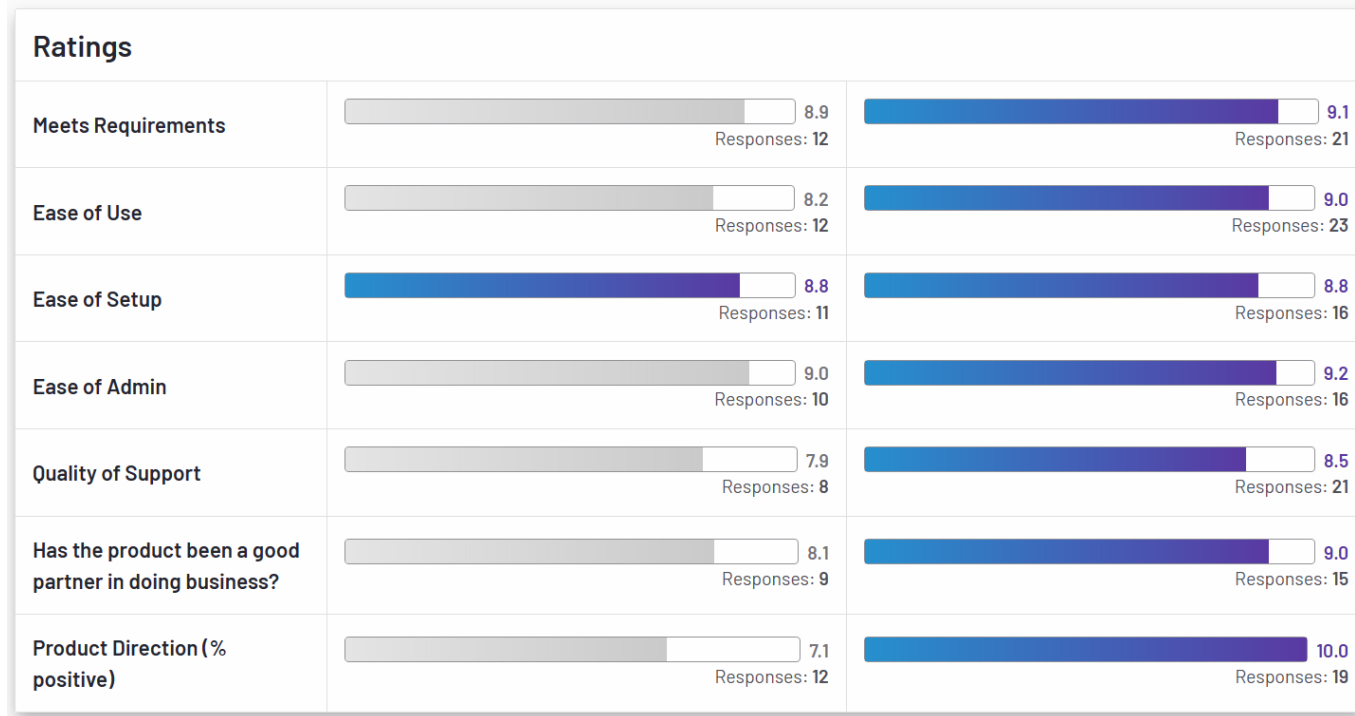
**WEKA**
The University
of Waikato

The **weka** is a flightless bird in New Zealand.

# Merits of Weka

- **It offers tens of different machine-learning algorithms for use.**

- **More machine-learning algorithms can be downloaded through its package management function.**

- **It does not require a background in programming!!**

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# Weka vs. machine learning in Python/R

## Ratings

| | Weka | | ML in Python/R | |
|---|---|---|---|---|
| **Meets Requirements** | 8.9 | Responses: 12 | 9.1 | Responses: 21 |
| **Ease of Use** | 8.2 | Responses: 12 | 9.0 | Responses: 23 |
| **Ease of Setup** | 8.8 | Responses: 11 | 8.8 | Responses: 16 |
| **Ease of Admin** | 9.0 | Responses: 10 | 9.2 | Responses: 16 |
| **Quality of Support** | 7.9 | Responses: 8 | 8.5 | Responses: 21 |
| **Has the product been a good partner in doing business?** | 8.1 | Responses: 9 | 9.0 | Responses: 15 |
| **Product Direction (% positive)** | 7.1 | Responses: 12 | 10.0 | Responses: 19 |

https://www.g2.com/compare/weka-vs-machine-learning-in-python

# Weka vs. machine learning in Python/R

- **Weka has a flat learning curve.**
- **You can learn how to do and actually do machine learning in a couple of days with Weka.**

- **Python/R has a steep learning curve.**

coursera.org
https://www.coursera.org › ... › Data  ▼ Käännä tämä sivu

How Long Does it Take to Learn Python? (+ Tips for Learning)

13.7.2022 — In general, it takes **around two to six months** to learn the fundamentals of Python. But you can learn enough to write your first short ...

- **Debugging takes lots of time and causes stress!**

# This Is How Long It Takes To Learn Machine Learning

**Updated:** 02/18/21 • 9 min read
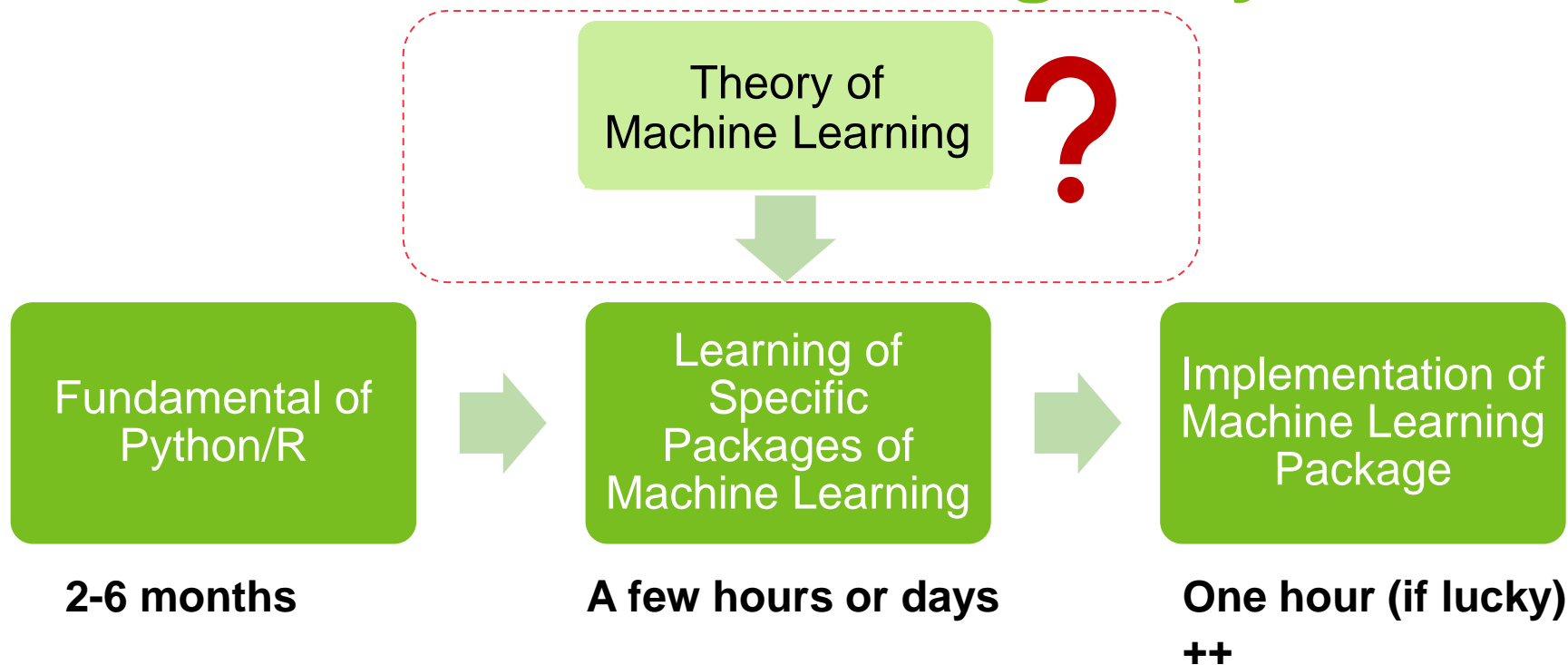
Learning machine learning is much like learning any new skill. It is dependent on factors such as your existing knowledge of machine learning topics, computer literacy, attitude, and the time you have to devote to learning it. With that in mind, here are some guidelines.

**To learn machine learning, expect it to take 6 months if you dedicate 40 hours a week to just learning it. Expect to study 2 years at 10 hours a week or through practical experience weaved into your job to have a solid foundation with machine learning.**

Link to the post: https://coffeebreakdata.com/how-long-to-learn-machine-learning/

# Weka vs. machine learning in Python/R



Theory of Machine Learning

**?**

| Fundamental of Python/R | → | Learning of Specific Packages of Machine Learning | → | Implementation of Machine Learning Package |

**2-6 months**          **A few hours or days**          **One hour (if lucky) ++**

**What if you need to compare the performance of, for instance, five different machine learning algorithms on the dataset?**

# What will we learn?

- **Implementation** of machine learning via Weka

- **A very brief introduction** to machine learning
    - It is highly recommended to learn the theory of machine learning from the data science course

# Summary

1. What Weka is.

2. Merits of Weka

3. Differences between Weka vs. programming-based machine learning tools, like Python and R.

4. Tutorial design.

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