ML4T Next Steps: Additional Material and Resources #1468

Steven Bryant **INSTRUCTOR**
an hour ago in **Announcements**

📌 UNPIN   ⭐ STAR   👁 WATCHING   **114** VIEWS

♡
3

ML4T students!

Congratulations on finishing all the projects! With only Exam 2 remaining, we hope that CS7646 was exciting, fun, and rewarding!

A few times during the course, we were asked about other resources and recommendations for further study. So, we have developed the attached resource list, which we hope you find useful. The list brings together suggestions from the instructional staff and from student suggestions in past terms.

The first thing you will notice is that there is a lot here. That is by design since the intent is to provide a robust reference list that ideally will provide launching points for further exploration. If one of the references does not resonate, then move to another which might resonate better.

Where possible, links will point to author-supported (aka legal) download sites, Oreilly.com, or amazon.com.

ML4T is only a beginning. We hope that you continue to pursue your passions and if that includes investing, machine learning, or AI-based trading, the attached resources will be valuable!

Financial, Investing, and Trading

- What Hedge Funds Really Do (Book) - Required course book that is a concise source of the financial and investing material used in the course.
- Investments (Book) - A comprehensive book that covers the financial and investing material used in the course.
- Technical Analysis Explained (Book) - A good book that covers technical analysis. Useful as a reference for understanding indicators and manual trading strategies.
- Technical Analysis of Financial Markets (Book) - Another good book that covers technical analysis. Useful as a reference for understanding indicators and manual trading strategies.
- Stockcharts.com (Website) - A free and easy-to-use website that is useful for indicator education, trading strategies, and charting (using a variety of charting techniques).
- Investopedia.com (Website) - A free and easy-to-use website that is useful for indicator education, news, and market simulation.
- Machine Learning in Finance (Book)
- Advances in Financial Machine Learning (Book)
- Machine Learning for Asset Managers (Book)

Machine Learning

- Machine Learning (Book) - Tom Mitchell's concise introduction to machine learning, including supervised and reinforcement learning. Supplemental reading in CS7646, but required reading in CS7641 (OMSCS ML course)

- An Introduction to Statistical Learning (Book) - A very good introductory ML book. Beginning in Summer 2022, we added this as a required book for the course.

- Elements of Statistical Learning (Book) - A more mathematical and complete introduction to ML. This book may be used in one of the courses in the OMSA program.

- Foundations of Machine Learning (Book) - Good material, but one of the more theoretical treatments of ML.

- Probabilistic Machine Learning: An Introduction (Book) - The long-anticipated second edition of Kevin Murphy's Machine Learning Book. This is a two-book series. Book 1 is available for free download. Book 2 was released as an EARLY DRAFT (as of March 2022) and is only recommended for those able to review and provide feedback to the author. In some places, Murphy's book (Book 1) is used as an alternative to Tom Mitchell's book.

- CS7641 Machine Learning (Georgia Tech OMSCS Course Videos)

- CMU-601 Machine Learning (Carnegie Mellon University Course Videos)

- Introduction to Machine Learning (University of Waterloo Course Videos)

Reinforcement Learning

- Reinforcement Learning: An Introduction (Book) - This is currently the definitive Reinforcement Learning textbook.

- Grokking Deep Reinforcement Learning (Book) - Written by Miguel Morales, former head TA for Georgia Tech's CS7642 RL Course.

- Reinforcement Learning (David Silver Video Lectures) - Videos and PowerPoint presentations. While there are more recent lessons on DeepMind's YouTube channel, this still remains a popular lecture series.

- CS7642 Reinforcement Learning (Georgia Tech OMSCS Course Videos)

- CS234 Reinforcement Learning (Stanford University Course Videos)

- RL In Finance (Stanford University - course and book DRAFT)

Deep Learning

- Deep Learning (Book) - This is the current leading Deep Learning textbook

- Deep Learning Illustrated (Book) and Deep Learning Illustrated (Video) - Good, easy-to-understand introduction to Deep Learning.

- Deep Learning Revolution (Book) - An easy-to-read book that presents Deep Learning, starting with a historical perspective and stepping forward to today.

- [Deep Learning](#) (Nature Article) - A good article by Hinton and others on deep learning. Access through the Georgia Tech Library.
- [Grokking Deep Learning](#) (Book) - A good book that, like ML4T, will have you implementing algorithms and models.
- [Foundations of Deep Reinforcement Learning](#) (Book) - Sections 1.1 through 1.4 provide a nice introduction to reinforcement learning and our work in CS7646.
- [deeplearning.ai](#) (Website) - A learning & education site by Andrew Ng.

 Please feel free to add to this list in the thread below.

We hope you all do well on Exam 2. :-)

Thank you for joining us this term!

If this is your final course and you're graduating, Congratulations!

PDF of this post