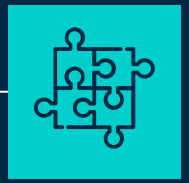
veri bilimi 101

veri bilimi için araçlar

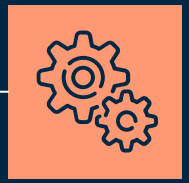
Murat Öztürkmen
Veri Bilimi, Tanı
İktisat Doktora, Y.T.Ü.

içerik



01

Programlama dilleri,
Temel istatistik,
Lineer cebir



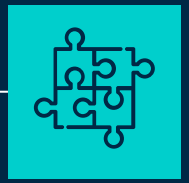
02

Yapay öğrenme

03

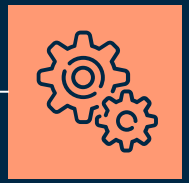
Hesaplamalı yöntemler,
Optimizasyon

içerik



04

Uygulamalar, Büyük veri ekosistemi



05

Disiplinlerarası modül

06

Diğer kaynaklar

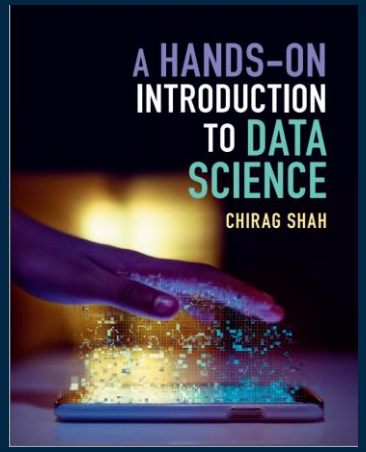
Programlama dilleri, Temel istatistik, Lineer Cebir

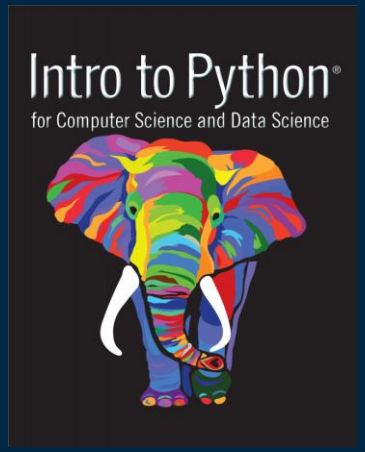

R

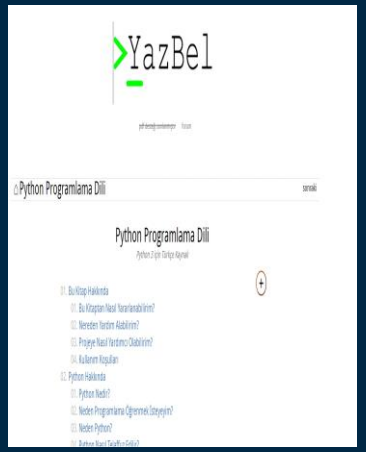

julia

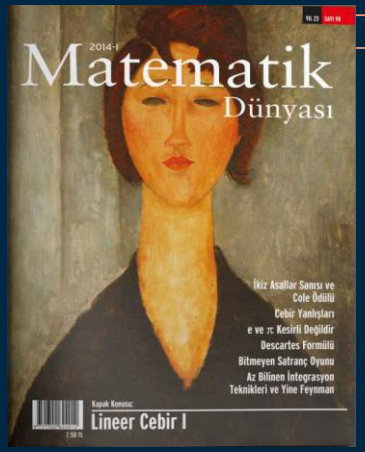

Open for Innovation
KNIME

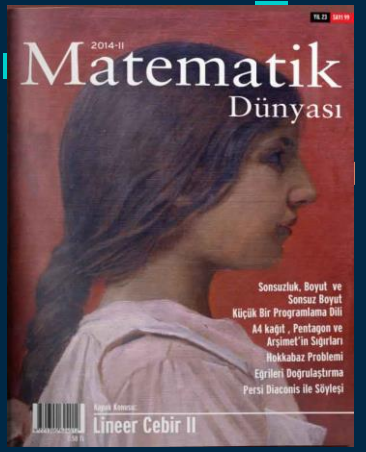

SQL


A HANDS-ON
INTRODUCTION
TO DATA
SCIENCE
CHIRAG SHAH

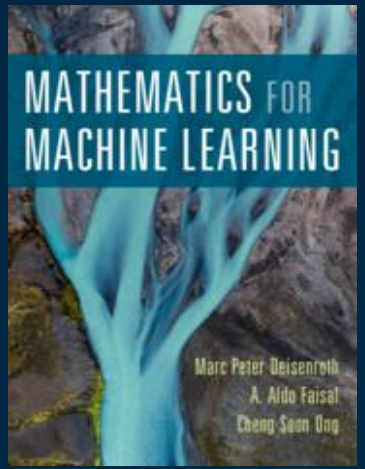

Intro to Python®
for Computer Science and Data Science

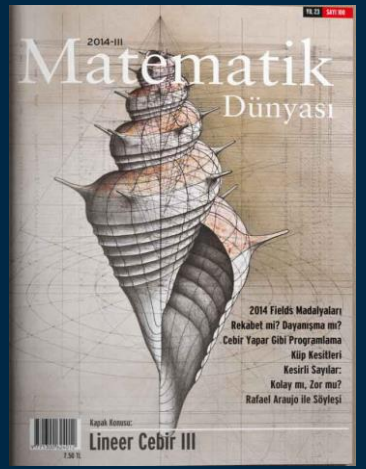

YazBel
Python Programlama Dili
Python Programlama Dili

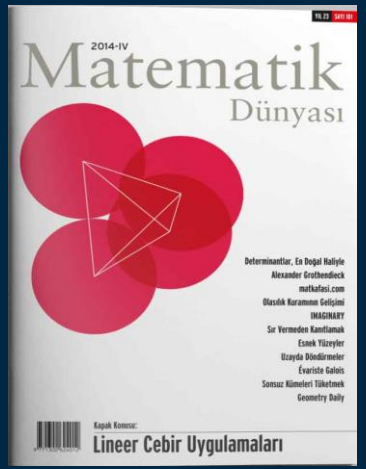

2014-I
Matematik
Dünyası
İkiz Asallar Sanısı ve
Cole Ödülü
Cebir Yanlışları
e ve π Kesirli Değildir
Descartes Formülü
Bitmeyen Satranç Oyunu
Az Bilinen İntegrasyon
Teknikleri ve Yine Feynman
Kapak Konusu:
Lineer Cebir I

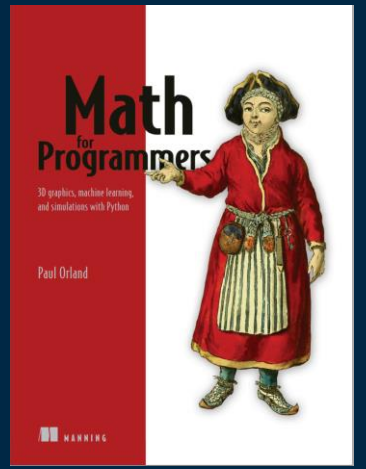

2014-II
Matematik
Dünyası
Sonsuzluk, Boyut ve
Sonsuz Boyut
Küçük Bir Programlama Dili
A4 kağıt , Pentagon ve
Arşimet'in Sığırları
Hokkabaz Problemi
Eğrileri Doğrulaştırma
Persi Diaconis ile Söyleşi
Kapak Konusu:
Lineer Cebir II


türkmen kitabevi
R
ile
PROGRAMLAMA
MEHMET HAKAN SATMAN

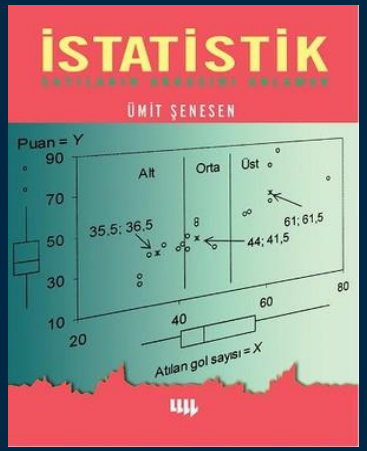

MATHEMATICS FOR
MACHINE LEARNING
Marc Peter Deisenroth
A. Aldo Faisal
Cheng Soon Ong


2014-III
Matematik
Dünyası
2014 Fields Madalyaları
Rekabet mi? Dayanışma mı?
Cebir Yapar Gibi Programlama
Küp Kesitleri
Kesirli Sayılar:
Kolay mı, Zor mu?
Rafael Araujo ile Söyleşi
Kapak Konusu:
Lineer Cebir III


2014-IV
Matematik
Dünyası
Determinantlar, En Doğal Haliyle
Alexander Grothendieck
matkafasi.com
Olasılık Kuramının Gelişimi
IMAGINARY
Sır Vermeden Kandırmak
Esnek Yüzeyler
Uzayda Döndürmeler
Évariste Galois
Sonsuz Kümeleri Tüketmek
Geometry Daily
Kapak Konusu:
Lineer Cebir Uygulamaları


Math
for
Programmers
3D graphics, machine learning,
and simulations with Python
Paul Orland
MANNING


İşletme ve İktisat İçin
İSTATİSTİK
8 BASIMDAN ÇEVİRİ
PAUL NEWBOLD, WILLIAM L. CARLSON, BETTY M. THORNE


İSTATİSTİK
ÜMİT ŞENESEN
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Alt
Orta
Üst
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44; 41,5
61; 61,5
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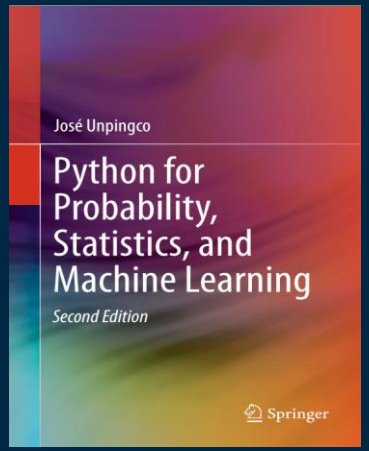

José Unpingco
Python for Probability, Statistics, and Machine Learning
Second Edition
Springer

Bağlantılar: R Programlama

Ismay and Kim (2020), Statistical Inference via Data Science	https://moderndive.com/
Peng (2019), R Programming for Data Science	https://bookdown.org/rdpeng/rprogdatascience/
Casas (2019), Data Science Live Book	https://livebook.datascienceheroes.com/
Hyndman and Athanasopoulos (2020), Forecasting: Principles and Practice	https://otexts.com/fpp2/
Healy (2018), Data Visualization	https://socviz.co/
Grolemund and Wickham (2019), Hands-On Programming with R	https://rstudio-education.github.io/hopr/
Grolemund and Wickham (2019), R for Data Science	https://r4ds.had.co.nz/
Dunn (2020), Scientific Research Methods	https://bookdown.org/pkaldunn/Book/
Dunn (2020), Scientific Research Methods: Tutorials	https://bookdown.org/pkaldunn/SRM-tutorials/
Nerth (2020), Data Science for Psychologists	https://bookdown.org/hneth/ds4psy/
Carilli (2020), R Companion to Real Econometrics	https://bookdown.org/carillitony/bailey/
Carrasco (2020), Causal Inference	https://bookdown.org/gabc91/causinf/
Roback and Legler (2020), Beyond Multiple Linear Regression	https://bookdown.org/roback/bookdown-BeyondMLR/
Hanck et al. (2020), Introduction to Econometrics with R	https://www.econometrics-with-r.org/
Kuhn and Silge (2020), Tidy Modeling with R	https://www.tmwr.org/
Boehmke and Greenwell (2020), Hands-on Machine Learning with R	https://bradleyboehmke.github.io/HOML/

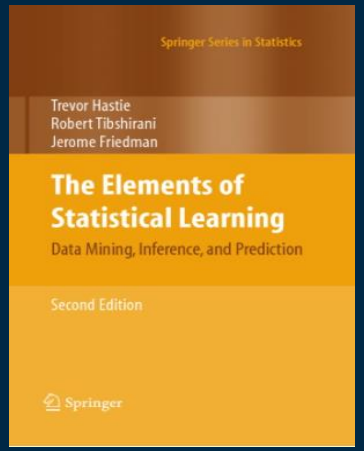
Bağlantılar: Julia Programlama

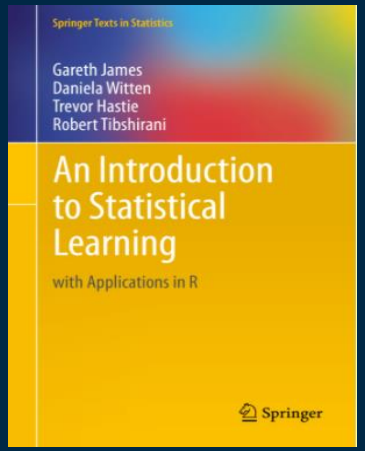
Julia Academy	https://juliaacademy.com/courses
Calculus with Julia	https://juliahub.com/docs/CalculusWithJulia/AZHbv/0.0.5/
CasIntroduction to Julia - Part 1 David Sandersas (2019), Data Science Live Book	https://www.youtube.com/watch?v=vWkgEddb4-A
Julia Tutorial | Julia Data Science Basic Full Course	https://www.youtube.com/watch?v=lwj-1mclq0U
A Deep Introduction to Julia for Data Science and Scientific Computing	http://ucidatascienceinitiative.github.io/IntroToJulia/

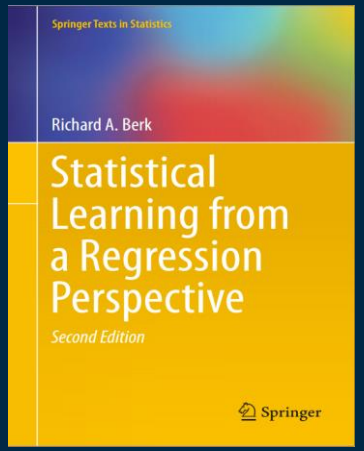
Bağlantılar: İstatistik, Lineer Cebir ve Programlamaya Giriş

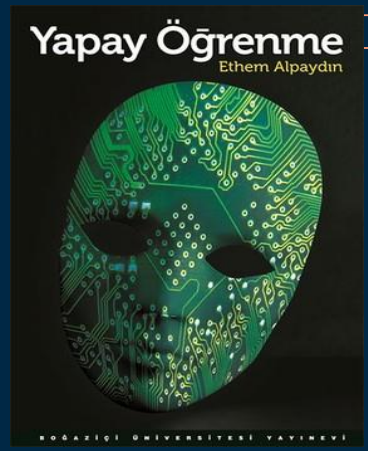
Statistics and probability	https://www.khanacademy.org/math/statistics-probability
Lineer Cebir ve Calculus	https://www.khanacademy.org/math
Mathematics for Machine Learning	https://mml-book.github.io/
MIT CS50X Bilgisayar Bilimlerine Giriş	https://www.kodluyoruz.org/cs50
Introduction to Computer Science and Programming in Python	https://ocw.mit.edu/courses/electrical-engineering-and-computer-science/6-0001-introduction-to-computer-science-and-programming-in-python-fall-2016/
Introduction to Computational Thinking and Data Science	https://ocw.mit.edu/courses/electrical-engineering-and-computer-science/6-0002-introduction-to-computational-thinking-and-data-science-fall-2016/
Ankara Üniversitesi Açık Ders Malzemeleri	https://acikders.ankara.edu.tr/

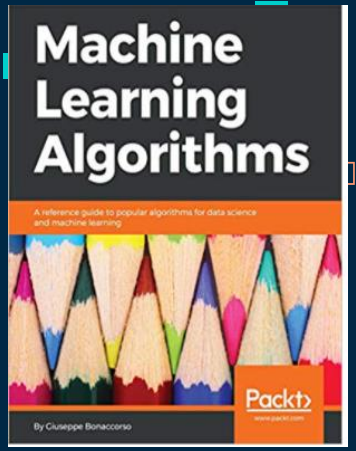
Yapay Öğrenme

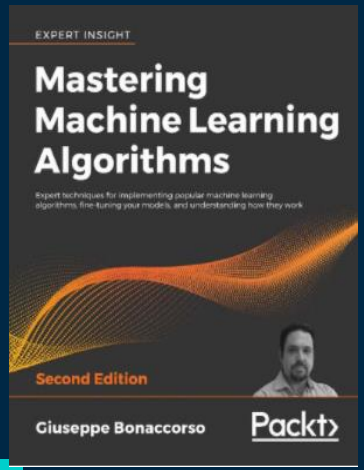

Springer Series in Statistics
Trevor Hastie
Robert Tibshirani
Jerome Friedman
The Elements of Statistical Learning
Data Mining, Inference, and Prediction
Second Edition
Springer

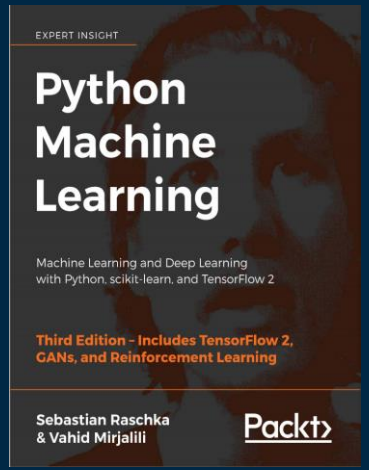

Springer Texts in Statistics
Gareth James
Daniela Witten
Trevor Hastie
Robert Tibshirani
An Introduction to Statistical Learning
with Applications in R
Springer

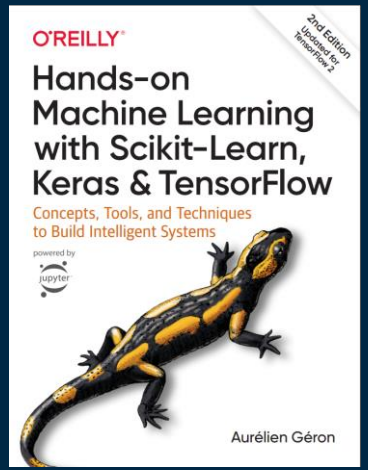

Springer Texts in Statistics
Richard A. Berk
Statistical Learning from a Regression Perspective
Second Edition
Springer

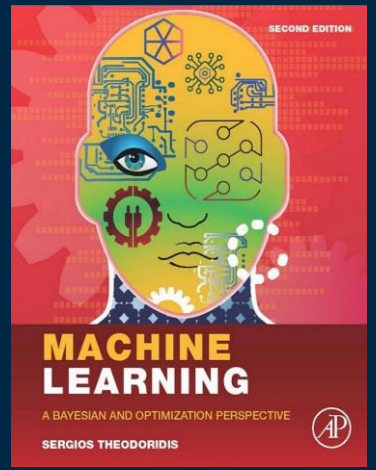

Yapay Öğrenme
Ethem Alpaydın
BOĞAZİÇİ ÜNİVERSİTESİ YAYINEVİ

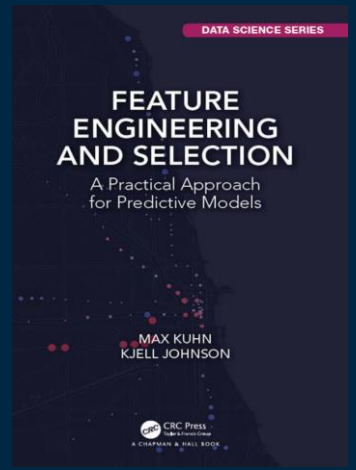

Machine Learning Algorithms
A reference guide to popular algorithms for data science and machine learning
By Giuseppe Bonaccorso
Packt

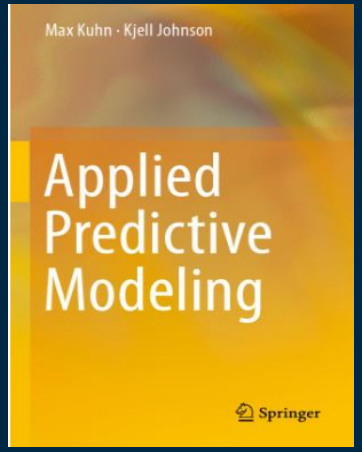

EXPERT INSIGHT
Mastering Machine Learning Algorithms
Expert techniques for implementing popular machine learning algorithms, fine-tuning your models, and understanding how they work
Second Edition
Giuseppe Bonaccorso
Packt

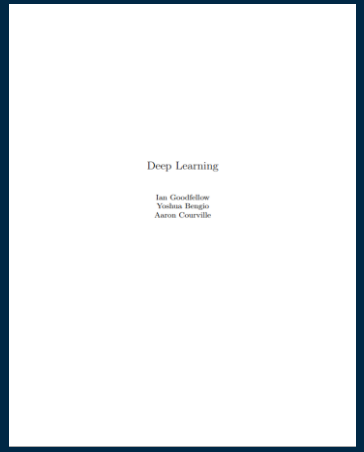

EXPERT INSIGHT
Python Machine Learning
Machine Learning and Deep Learning with Python, scikit-learn, and TensorFlow 2
Third Edition - Includes TensorFlow 2, GANs, and Reinforcement Learning
Sebastian Raschka
& Vahid Mirjalili
Packt

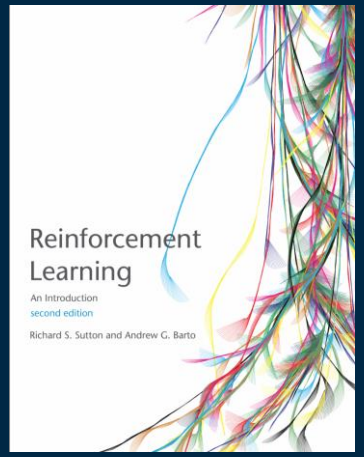

O'REILLY
2nd Edition Updated for TensorFlow 2
Hands-on Machine Learning with Scikit-Learn, Keras & TensorFlow
Concepts, Tools, and Techniques to Build Intelligent Systems
powered by
jupyter
Aurélien Géron


SECOND EDITION
MACHINE LEARNING
A BAYESIAN AND OPTIMIZATION PERSPECTIVE
SERGIOS THEODORIDIS


DATA SCIENCE SERIES
FEATURE ENGINEERING AND SELECTION
A Practical Approach for Predictive Models
MAX KUHN
KJELL JOHNSON
CRC Press


Max Kuhn · Kjell Johnson
Applied Predictive Modeling
Springer

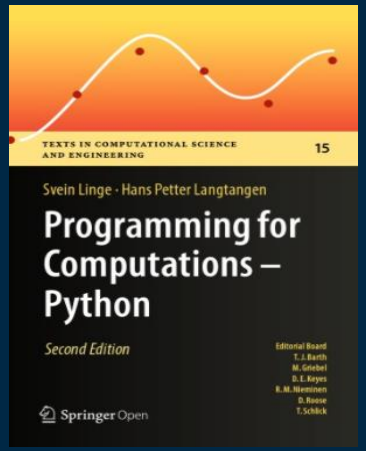

Deep Learning
Ian Goodfellow
Yoshua Bengio
Aaron Courville

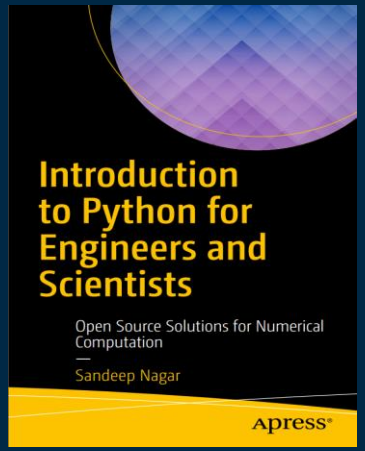

Reinforcement Learning
An Introduction
second edition
Richard S. Sutton and Andrew G. Barto

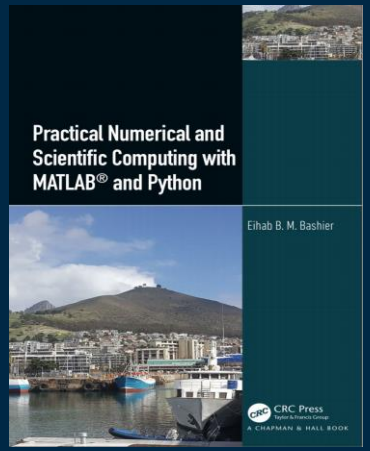
Bağlantılar: Yapay Öğrenme

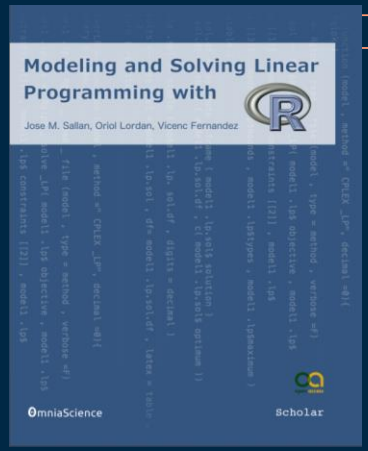
İstanbul'da Makine Öğrenmesi, 2020	https://github.com/sibirbil/IMO2020
Machine Learning Crash Course	https://developers.google.com/machine-learning/crash-course
Foundations Of Machine Learning	https://bloomberg.github.io/foml/#home

Hesaplamalı yöntemler, optimizasyon


TEXTS IN COMPUTATIONAL SCIENCE AND ENGINEERING
15
Svein Linge · Hans Petter Langtangen
Programming for Computations – Python
Second Edition
Springer Open


Introduction to Python for Engineers and Scientists
Open Source Solutions for Numerical Computation
Sandeep Nagar
Apress

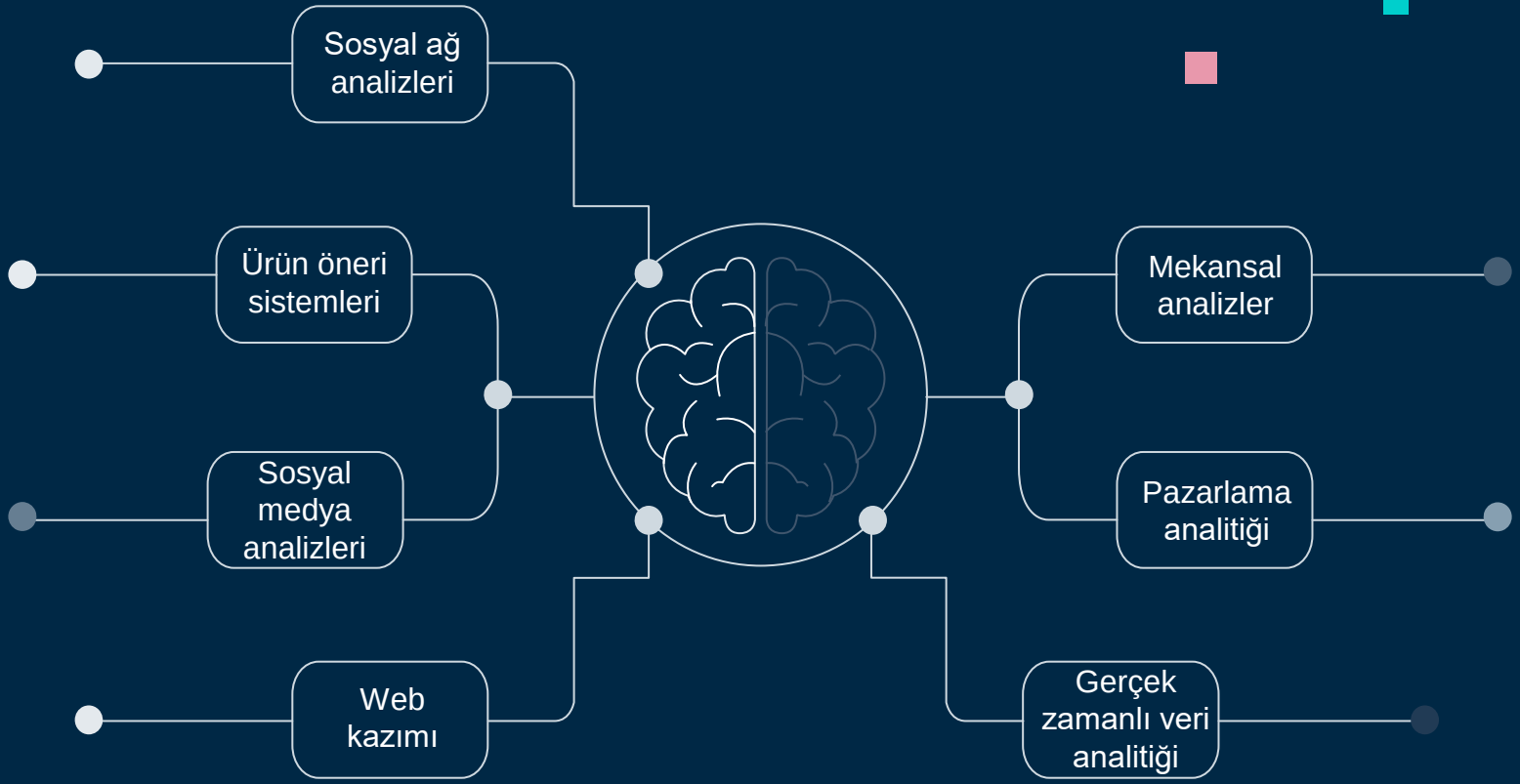

Practical Numerical and Scientific Computing with MATLAB® and Python
Eihab B. M. Bashier
CRC Press
A CHAPMAN & HALL BOOK

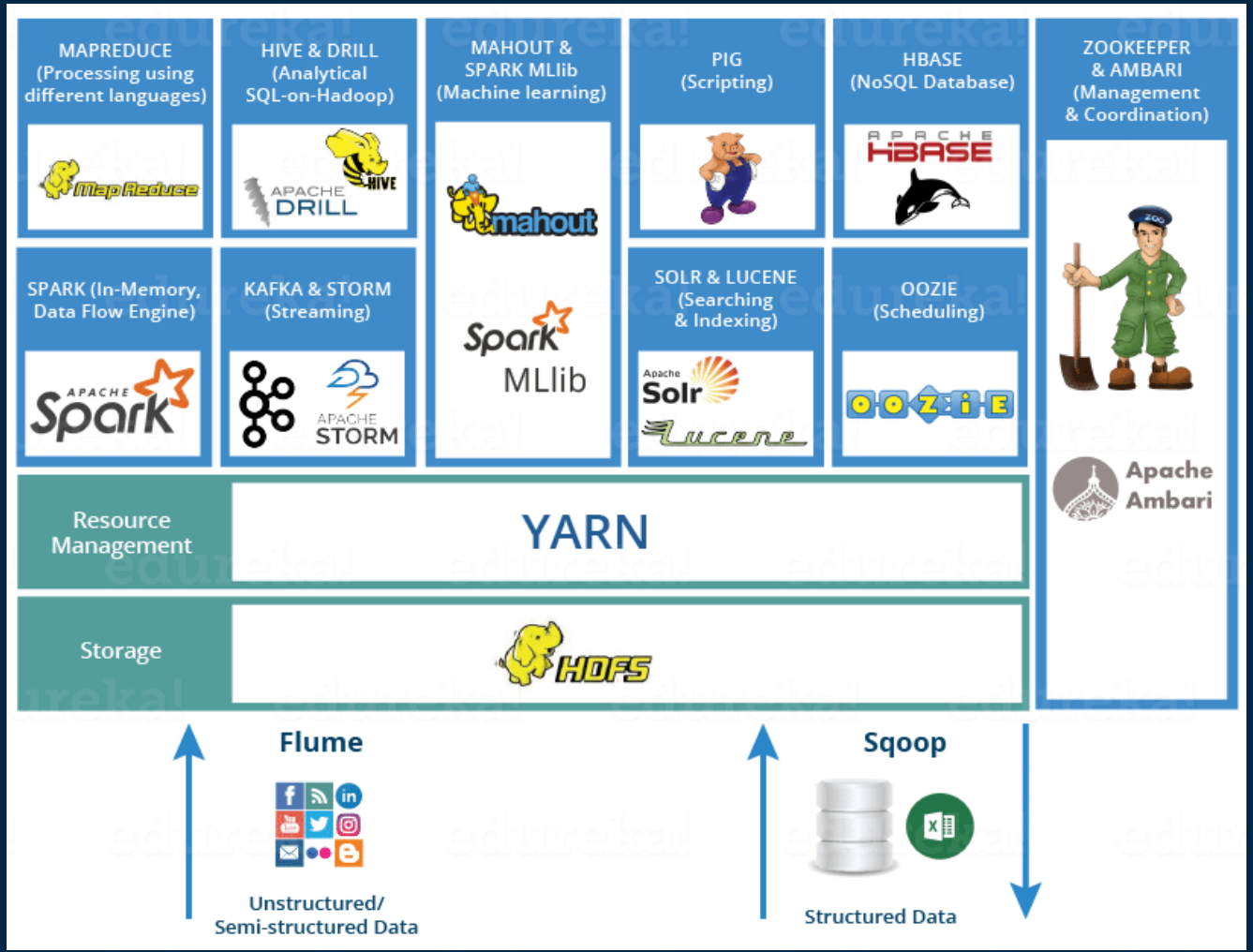

Modeling and Solving Linear Programming with
Jose M. Sallan, Oriol Lordan, Vicenc Fernandez
OmniaScience
Scholar

Bağlantılar: Hesaplamalı yöntemler ve optimizasyon

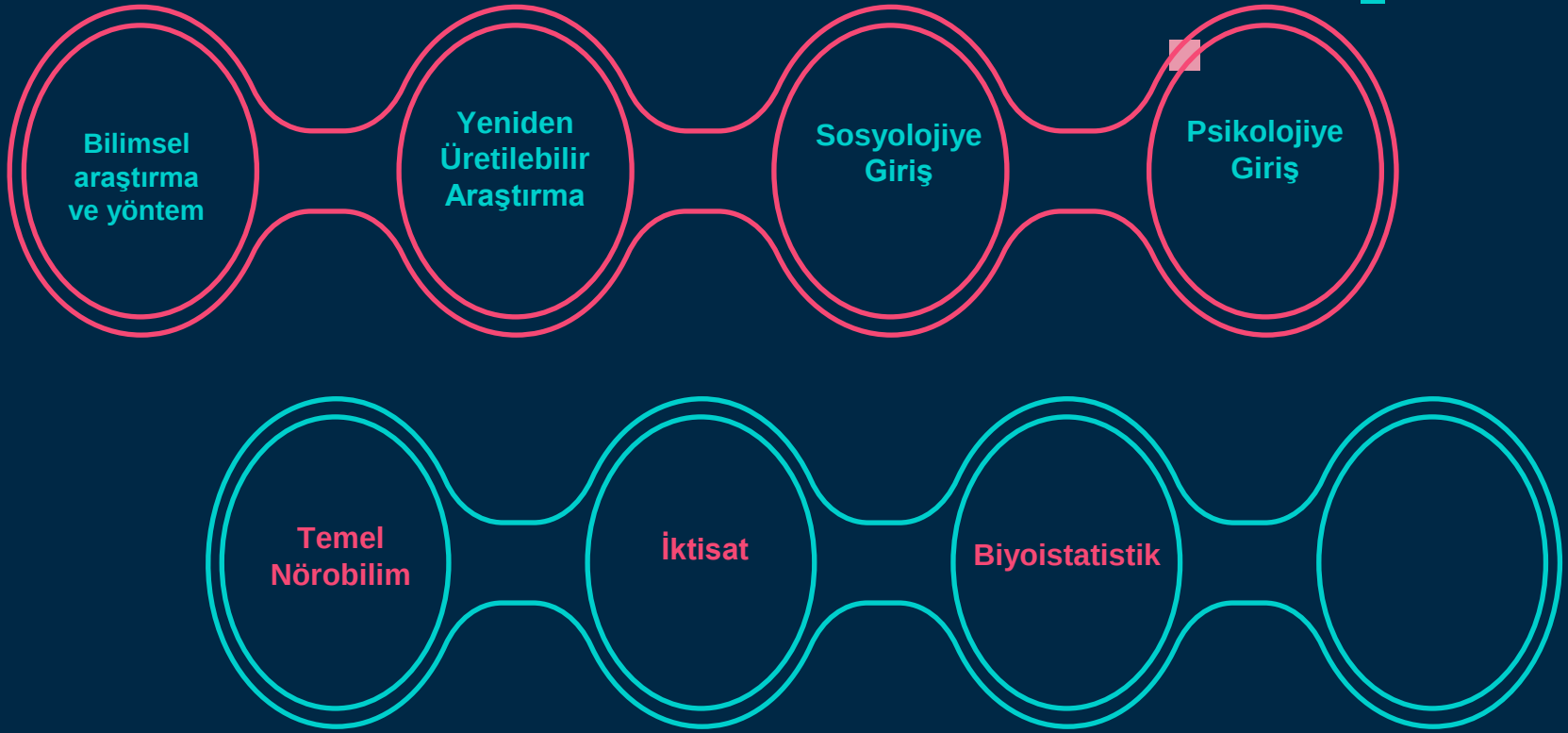
SciPy Cookbook	https://scipy-cookbook.readthedocs.io/index.html
Mathematical Python	https://www.math.ubc.ca/~pwalls/math-python/
Scipy Lectures	https://mml-book.github.io/

Uygulamalar,
Büyük veri ekosistemi


Sosyal ağ analizleri
Ürün öneri sistemleri
Sosyal medya analizleri
Web kazımı
Mekansal analizler
Pazarlama analitiği
Gerçek zamanlı veri analitiği


MAPREDUCE (Processing using different languages)
HIVE & DRILL (Analytical SQL-on-Hadoop)
MAHOUT & SPARK MLlib (Machine learning)
PIG (Scripting)
HBASE (NoSQL Database)
ZOOKEEPER & AMBARI (Management & Coordination)
SPARK (In-Memory, Data Flow Engine)
KAFKA & STORM (Streaming)
SOLR & LUCENE (Searching & Indexing)
OOZIE (Scheduling)
Resource Management
YARN
Storage
HDFS
Flume
Unstructured/ Semi-structured Data
Sqoop
Structured Data

Displinlerarası modül


Bilimsel araştırma ve yöntem
Yeniden Üretilebilir Araştırma
Sosyolojiye Giriş
Psikolojiye Giriş
Temel Nörobilim
İktisat
Biyoistatistik

Diğer Kaynaklar

Bağlantılar: Dergiler, Açık Kaynaklı Makaleler

The Journal of Open Source Software	https://joss.theoj.org/
Distill	https://distill.pub/
arxiv	https://arxiv.org/
Frontiers in	https://www.frontiersin.org/
Papers with Code	https://paperswithcode.com/

Bağlantılar: Öğrenme Platformları

Coursera	https://www.coursera.org/
Udemy	https://www.udemy.com/
Edx	https://www.edx.org/
Free Code Camp	https://www.freecodecamp.org/learn/
Datacamp – yaparak öğrenme	https://www.codecademy.com/
Codecademy	https://rstudio-education.github.io/hopr/
Veri Bilimi Okulu	https://www.veribilimiokulu.com/

Bağlantılar: Yarışma ve Paylaşma Platformları

Kaggle	https://www.kaggle.com/
Driven Data	https://www.drivendata.org/competitions/
Crowd Analytix	https://www.crowdanalytix.com/community
Analytics Vidhya	https://datahack.analyticsvidhya.com/

Bağlantılar: Bloglar

Veri Defteri	http://www.veridefteri.com/
Veri Bilimi Okulu	https://www.veribilimiokulu.com/
Data Science Earth	https://www.datasciencearth.com/
Medium	https://medium.com/
Data Science +	https://datascienceplus.com/
Analytics Vidhya	https://www.analyticsvidhya.com/blog/
Machine Learning Mastery	https://machinelearningmastery.com/
Business Science	https://www.business-science.io/blog/index.html
Kdnuggets	https://www.kdnuggets.com/
R-bloggers	https://www.r-bloggers.com/
Rstudio blog	https://blog.rstudio.com/
Rstudio views	https://rviews.rstudio.com/
Tidyverse blog	https://www.tidyverse.org/blog/
Rstudio Education	https://education.rstudio.com/blog/

sorusu olan?

Murat Öztürkmen

teşekkürler

mozturkmen

homodigitus