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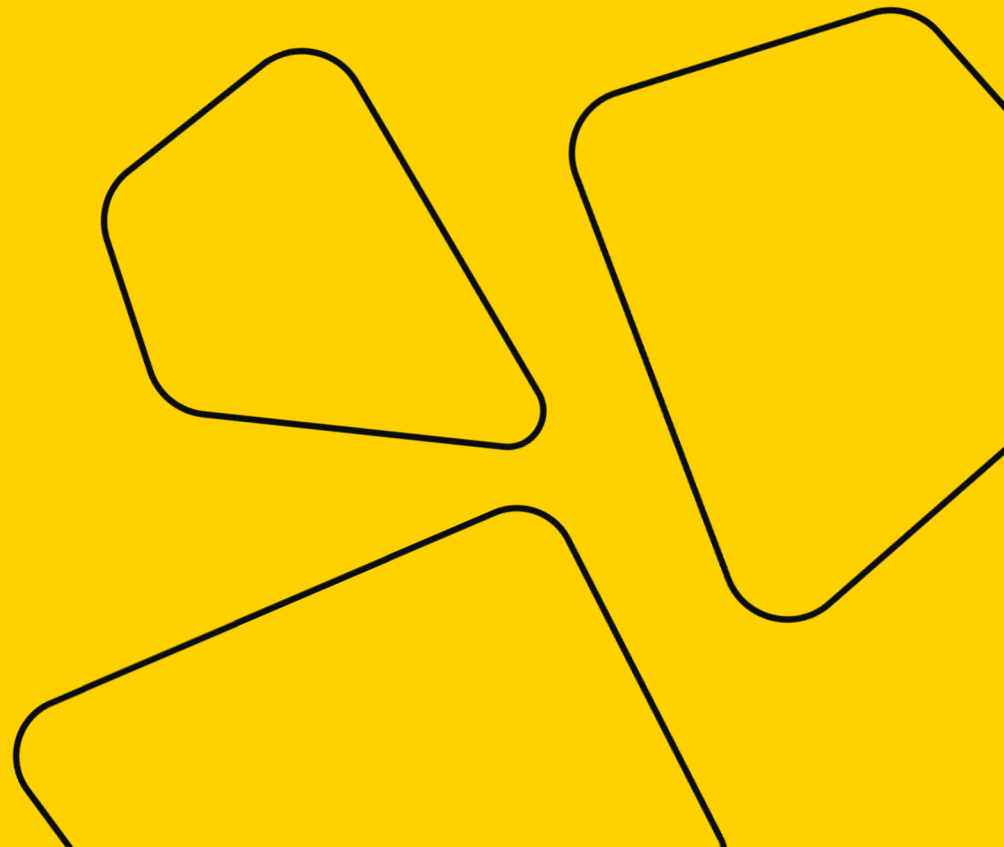
Math Refresher for DS

Introduction



About me

- Evgeniya Korneva
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- Sr. Data Sientist MONSTER
- Lecturer HARBOUR SPACE
- Ex-head of DS Content JetBrains Academy

Why do we care?

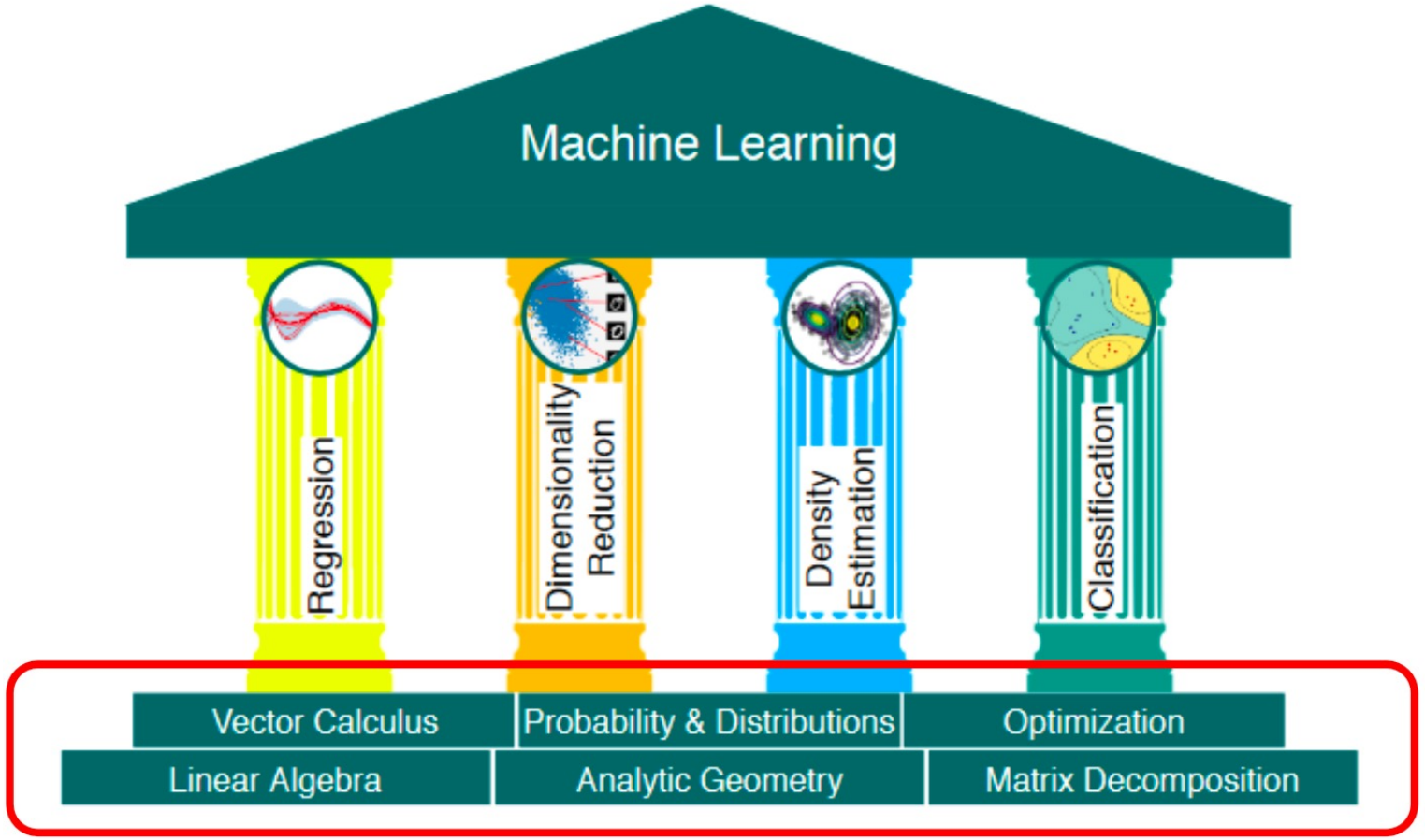


Image source: Mathematics for Machine Learning, p.14
(https://mml-book.github.io/book/mml-book.pdf)

In this course

We will review:

- Linear Algebra
- Calculus

Prerequisites:

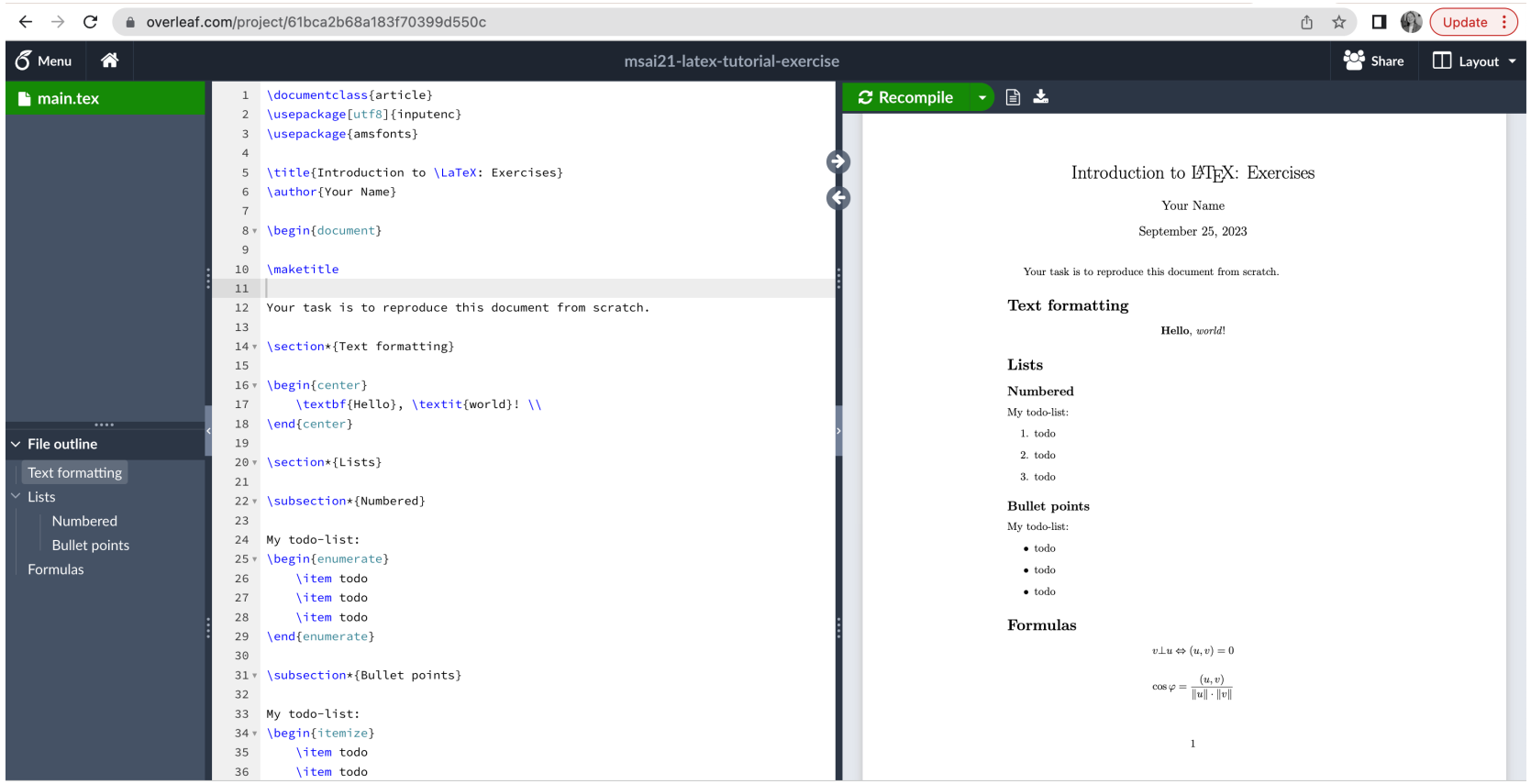
- Some Pyhton
- Basic Math
- *Latex*

Logistics

- Pre-recorded lectures
- Online practical sessions
  - *Wednesdays & Fridays*
    19:00 Moscow time
    1.5 hours
- ±5 graded assignements
- Final grade:
  - *60% exam (30% Linear Algebra, 30% Calculus)*
  - *40% graded assignemnts*

You should use Latex for assignments

http://overleaf.com is a greate online editor



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Useful resources

Course github: https://github.com/girafe-ai/math-basics-for-ai

Useful Resources

Linear Algebra

- (course) Topics in Linear Algebra: lecture notes + quizes.
- (Youtube playlist) Linear Algebra for Engineers: a series of videos covering the most important concepts.
- (lecture notes) Linear Algebra in 25 Lectures (UC Davis)
- (book) Introduction to Applied Linear Algebra
- (book) Deep Learning - Part I

Calculus

- (Youtube playlist) Essence of Calculus
- (lecture notes) Introduction to Differential Calculus [pdf]
- (lecture notes) First Semester Calculus [pdf]

General

- (book) Mathematics for Machine Learning

- Please fill in a short questionnaire about your background https://forms.gle/3GXizMcK255fmRyj7

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