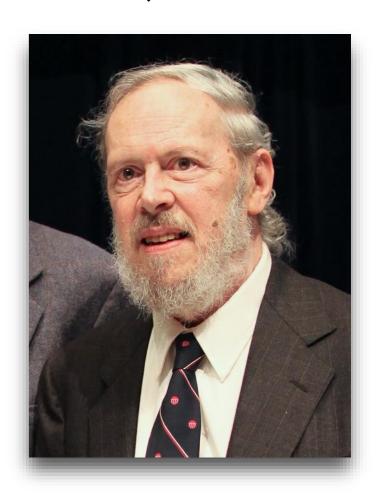
"The only way to learn a new programming language is by writing programs in it."

- Dennis Ritchie (1941 - 2011)



MATLAB - From Zero to Hero



Jousef Murad B.Sc. Mech. Eng.



@jousefm2



@jousefmrd

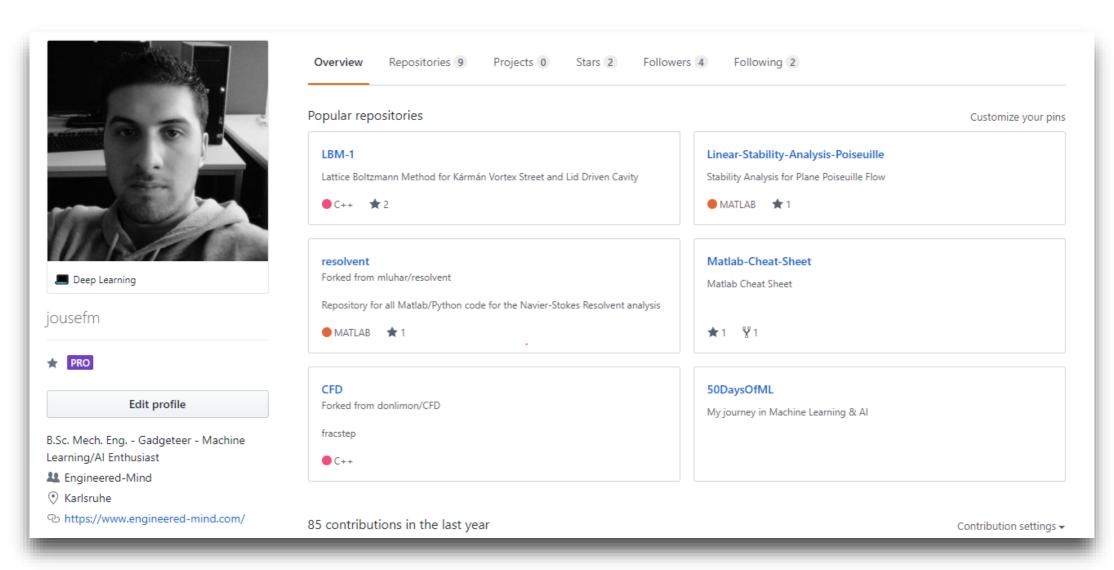


engineered-mind.com

Github



github.com/jousefm/



Planned Series

MATLAB

- What is MATLAB? Today!
- .
- Basics (Arithmetic, Data Types, Conventions, Special Values)
 - Special Operations (Relational, abs/sign ...)
- Fundamentals .
 - Scripts
 - Function

Git & Shell?

MATLAB

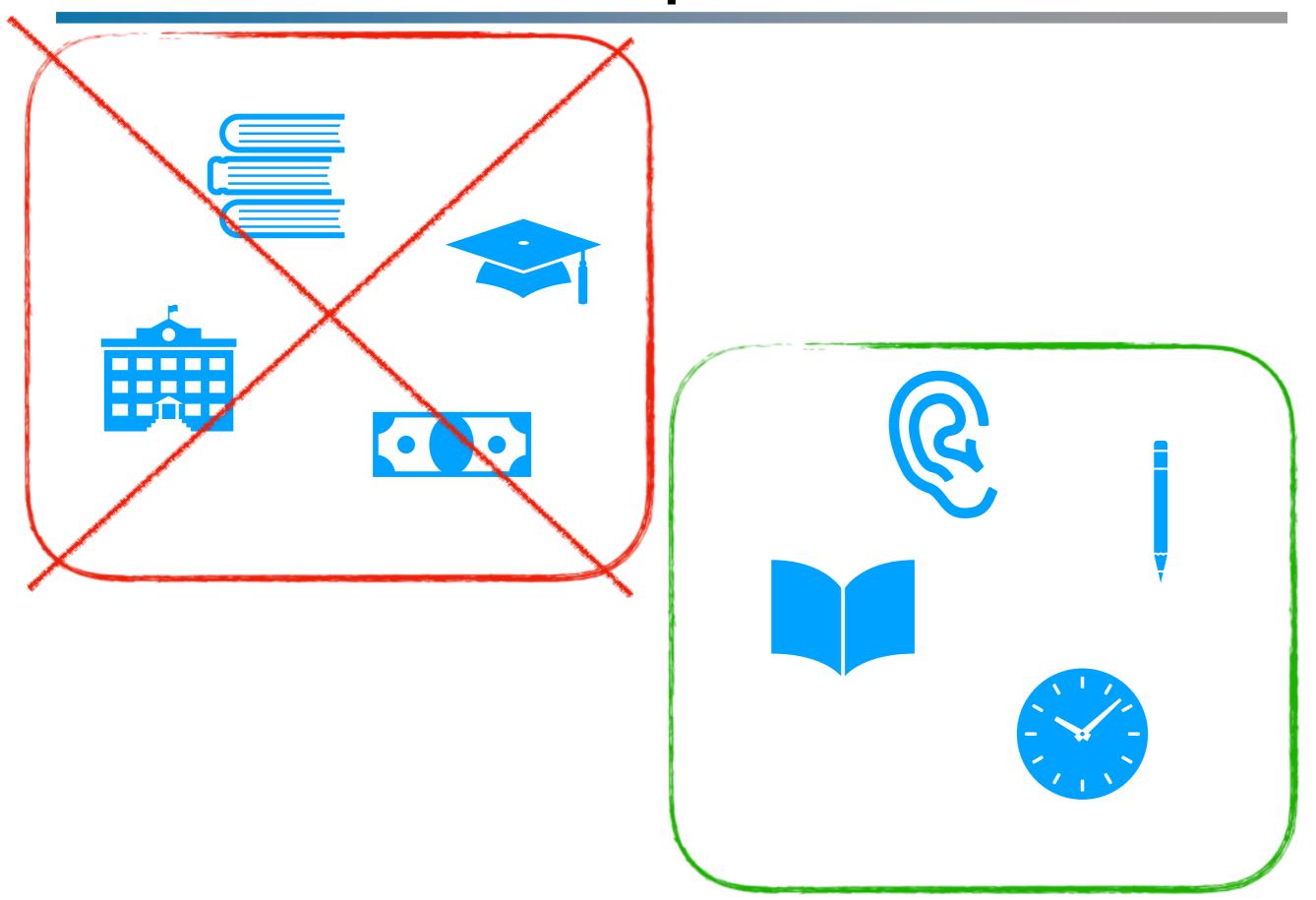
Intermediate

- Vectors
- Matrices
- Save & Load Data
- Functions
- Conditional Statements
- Loops

MATLAB

- Debugging
- Symbolic Mathematics
- **Advanced**
- Solve Differential EquationSimulink
- → Simulink
- Advances Examples (Lotka-Voltera Equations, Spring Pendulum...)

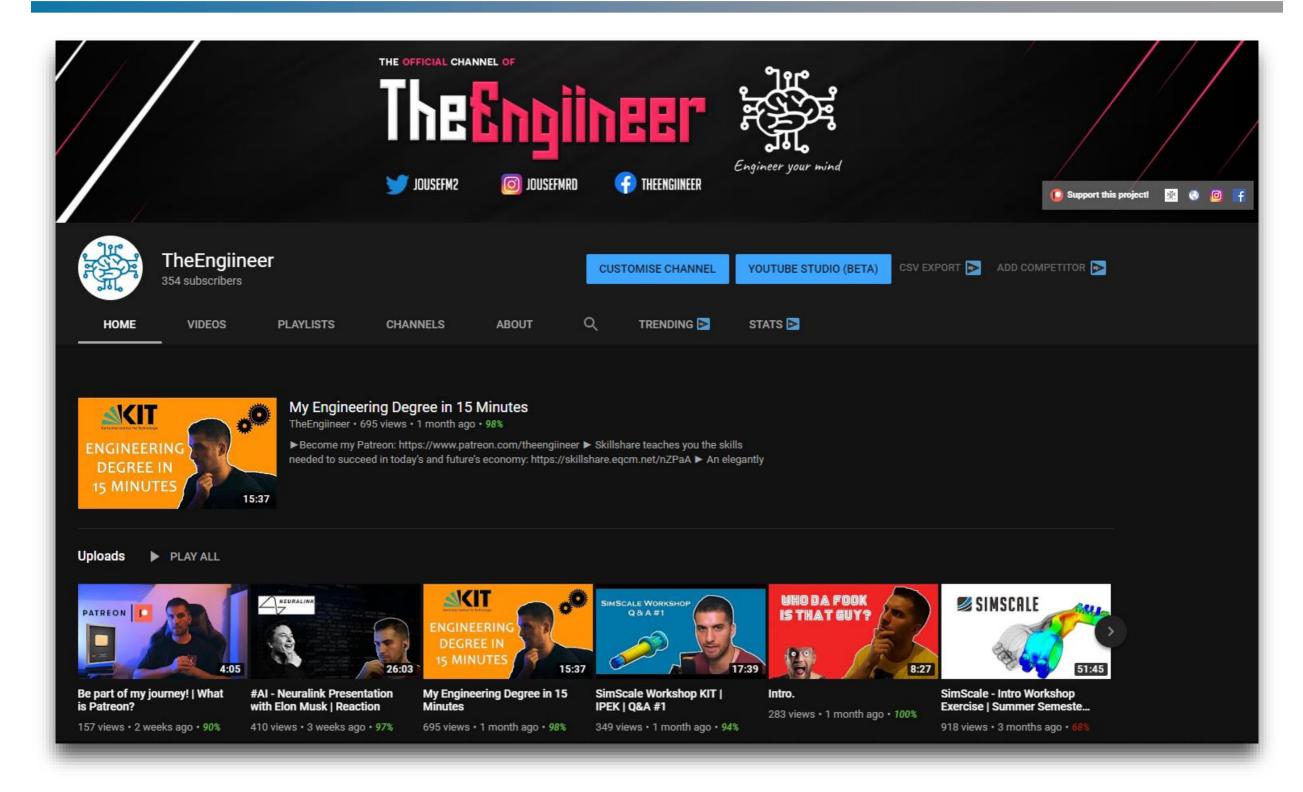
Prerequisites



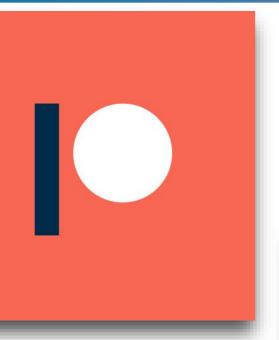
Questions & Comments

- Social Media Channels
- Comment Section
- Q&A Videos (Instagram) / (Twitch)

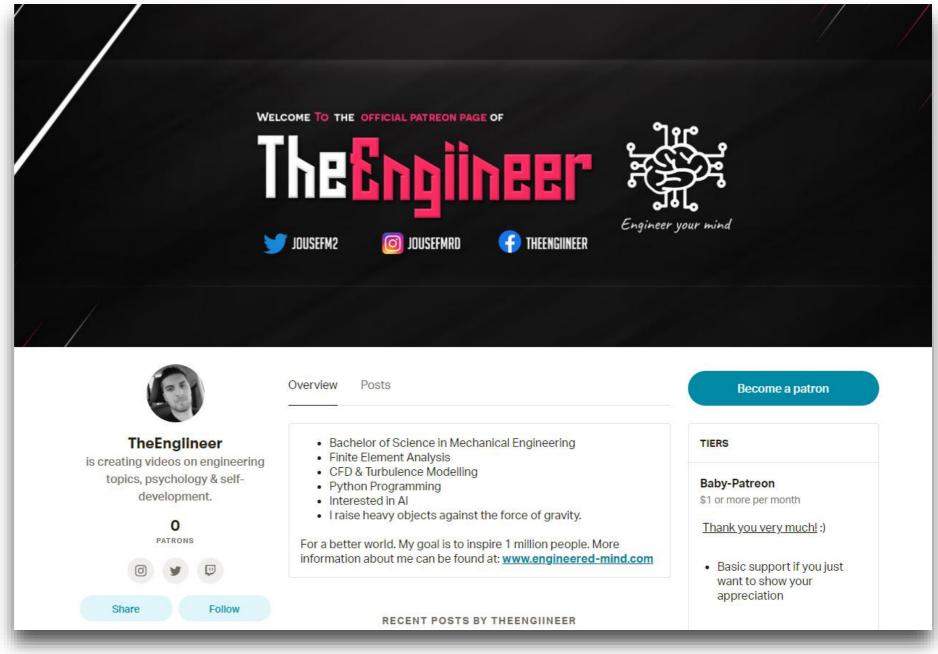
Subscription & Notification



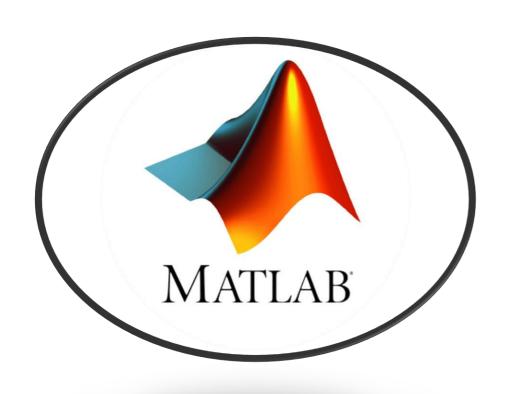
Subscription



patreon.com/theengiineer



Let's get started!



High-Level Programming Language







What is MATLAB used for?

- Data Analytics
- Robotics
- Mechatronics
- Image Processing and Computer Vision
- Control Systems
- Embedded System

The History of MATLAB

- MATLAB = MATrix LABoratory
- Developed late 1970s by Cleve Moler
- Alternatives for LINPACK & EISPACK to avoid FORTRAN
- Initial release 1984 by MathWorks

Learning Objectives

- You know what MATLAB is
- You are able to recall the basic concepts of MATLAB
- You know what MATLAB can be used for:)

Next Video

- MATLAB The Intelligent Calculator
- Save your precious work What are Scripts?
- Commenting Code