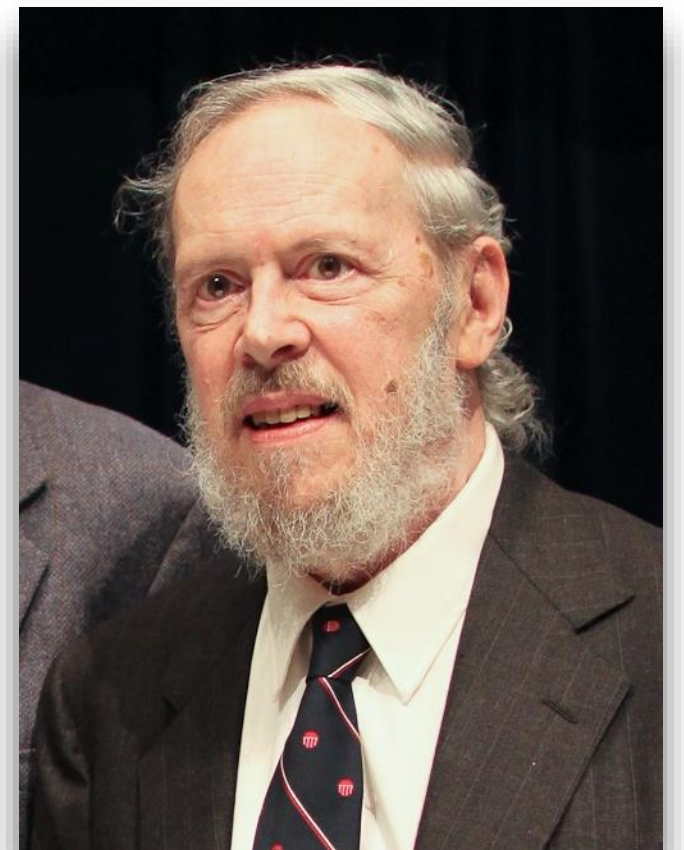


**“The only way to learn a new programming language is by writing programs in it.”**

**– Dennis Ritchie (1941 – 2011)**



# MATLAB – From Zero to Hero

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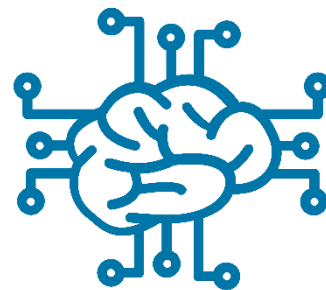
**Jousef Murad**  
B.Sc. Mech. Eng.



**@jousefm2**



**@jousefmrd**

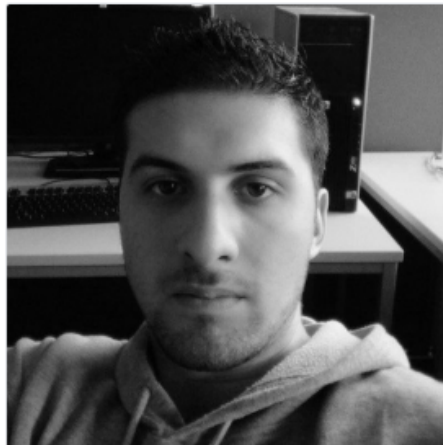


**engineered-mind.com**

# Github



github.com/jousefm/



Deep Learning

jousefm

★ PRO

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Lattice Boltzmann Method for Kármán Vortex Street and Lid Driven Cavity

C++ ★ 2

### resolvent

Forked from mluhar/resolvent

Repository for all Matlab/Python code for the Navier-Stokes Resolvent analysis

MATLAB ★ 1

### CFD

Forked from donlimon/CFD

fracstep

C++

### Linear-Stability-Analysis-Poiseuille

Stability Analysis for Plane Poiseuille Flow

MATLAB ★ 1

### Matlab-Cheat-Sheet

Matlab Cheat Sheet

★ 1 🍴 1

### 50DaysOfML

My journey in Machine Learning & AI

85 contributions in the last year

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# Planned Series

## MATLAB Fundamentals

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

Git & Shell ?

## MATLAB Intermediate

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

## MATLAB Advanced → Simulink

- Symbolic Mathematics
- Solve Differential Equation
- Simulink
- Advances Examples (Lotka-Volterra Equations, Spring Pendulum...)

# Prerequisites

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# Questions & Comments

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

# Subscription & Notification


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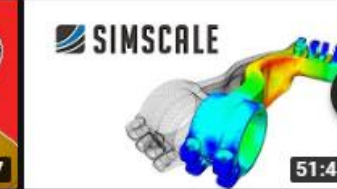
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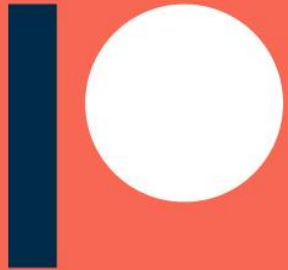
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- Python Programming
- Interested in AI
- I raise heavy objects against the force of gravity.

For a better world. My goal is to inspire 1 million people. More information about me can be found at: [www.engineered-mind.com](http://www.engineered-mind.com)

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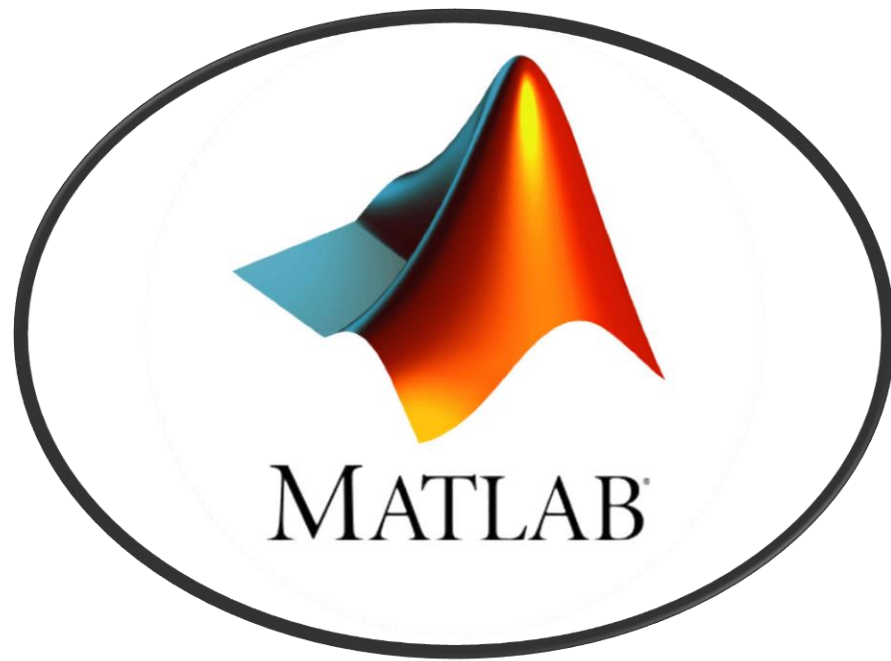
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# Let's get started!

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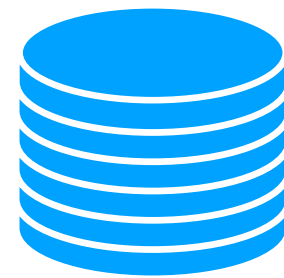
High-Level Programming Language



Easy to Read



Dynamic



Multi-Paradigm

# What is MATLAB used for?

---

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

# 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

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