

Corso base di MATLAB come Attività Formativa del Corso di Studi

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Dr.ssa Francesca Marini
Roma, 10 novembre 2020



Corso di Studi in Ingegneria Elettronica

Dipartimento di Ingegneria Elettronica
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¹OICA: 2016 World Motor Vehicle Production



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²PwC: Aerospace and Defense 2017 Year in Review



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MATLAB R2020b

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Gravity_finder_ert_rtw

SecuritySystem

SenseHAT

Sleepy_Driver_ert_rtw

slprj

.MATLABDriveTag

arduino_gettingstarted.slx

beep-01a.wav

Copy_2_of_senseHAT_demo.png

Copy_of_senseHAT_demo.png

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Gravity_finder.slx

Gravity_finder.slx.r2017b

Gravity_finder.slxc

HW_Unige.pptx

IoT, mobile and online ideas for Motor.pptx

license.txt

Main.mlx

pptEF06.tmp

ProgrammingArduinoAndRaspberryPiWithMATLABandSimulink...

ProgrammingArduinoAndRaspberryPiWithMATLABandSimulink...

Prova.elf

Prova.slx

Prova.slxc

Prova2.elf

Prova2.slx

raspberrypi_inversion.slx

raspberrypi_led.slx

Details

Workspace

Name

Value

hogg

6x5 double

x1

[24;15;21;27;33;23]

x2

[14;7;12;17;14;16]

x3

[11;9;7;13;12;18]

x4

[7;7;4;7;12;18]

x5

[19;24;19;15;10;20]

Live Editor - C:\Users\fmardini\MATLAB Drive\InferentialStatistics\PerformOneWayANOVAExample.mlx

manipulator_control_part1_notes.mlx

manipulator_control_part2_notes.mlx

Main.mlx

OneWayAnovaUnbalanced.mlx

PerformOneWayANOVAExample.mlx

PlotOrientation_solution.m

WebinarDemos.m

Integration.mlx

SigProc.mlx

FFT_Aliasing_example.m

Main.mlx

Perform One-Way ANOVA

EXAMPLE 1: Perform One-Way ANOVA

This example shows how to perform one-way ANOVA to determine whether data from several groups have a common mean.

Load and display the sample data.

```
1 load hogg
2 hogg
```

```
hogg = 6x5
    24    14    11     7    19
    15     7     9     7    24
    21    12     7     4    19
    27    17    13     7    15
    33    14    12    12    10
    23    16    18    18    20
```

The data comes from a Hogg and Ledolter (1987) study on bacteria counts in shipments of milk. The columns of the matrix hogg represent different shipments. The rows are bacteria counts from cartons of milk chosen randomly from each shipment.

```
3 normplot(hogg)
```

Command Window

New to MATLAB? See resources for [Getting Started](#).

fx >>

MATLAB R2020a

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bostonTempsF.mat

c2f_calibackslx

c2f_calibackslx

c2f_twchannel.slx

c2f_twchannel.slx.autosave

celcius.mat

fahrenheit.mat

untitled.slx.autosave

Details

Workspace

Name

Value

err_interval

3

project

subname

user

Editor - C:\Users\fmardini\Downloads\main_proprioception.m

main_proprioception.m

```
1 clear all; clc; close all
2
3
4 %-----FOR THE USER TO MODIFY-----
5 %
6 % Vector of SUBJECTS
7 % add the name of the new subject to upload in the cell array
8 user = 'BackComp'; %
9 subname = ('YA180');
10 %subname = ('YA004';'YA005';'YA006';'YA009';'YA012';'YA014';'YA015';'YA016';'YA023';'YA026';'YA027';'YA031';
11 % 'YA041';'YA054';'YA073';'YA074';'YA075';'YA112';'YA116';'YA118';'YA119';'YA121';'YA123';'YA136';
12 % 'YA140';'YA142';'YA151';'YA156';'YA043');
13
14 err_interval = 3; % confidence interval for outliers removal. Values of
15 % MatchingError (ME) >= err_interval * std(ME) will be considered outliers
16 % mean(ME) +/- err_interval * std(ME) will be considered outliers
17 project.dof_name = ('Ext','Flt','RD','UD','Sup','Pro');
18
19 %-----OPERATIONS-----
20
21
```

Command Window

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fx >>



Deep Learning



Test and Measurement



Data Science



Digital Signal Processing



Robotics



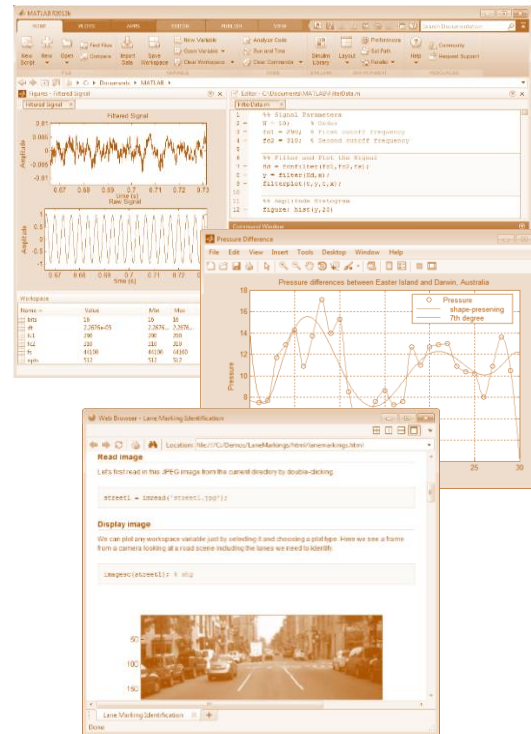
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Esegui simulazioni, genera codice,
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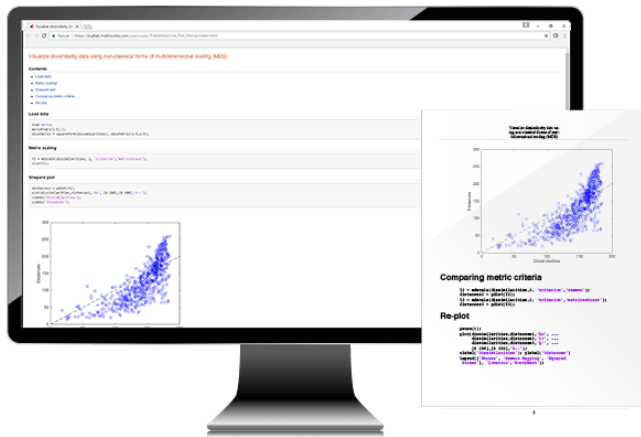
Scopri Simulink

R2020a

Novità dell'ultima versione di
MATLAB e Simulink

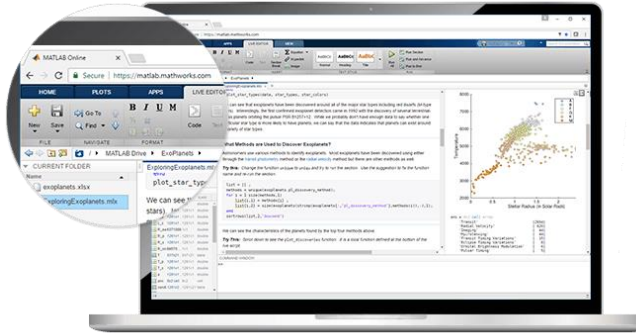
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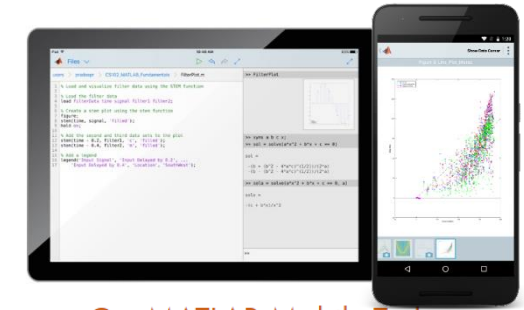
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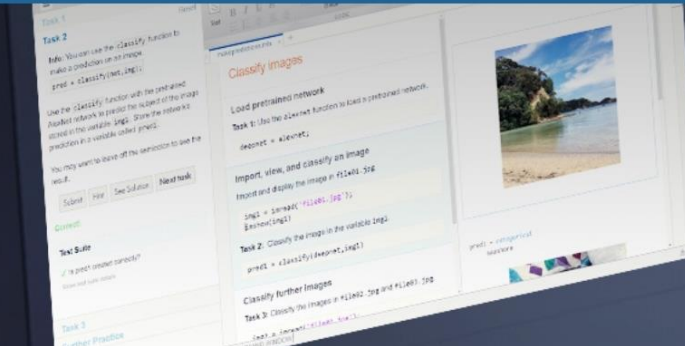
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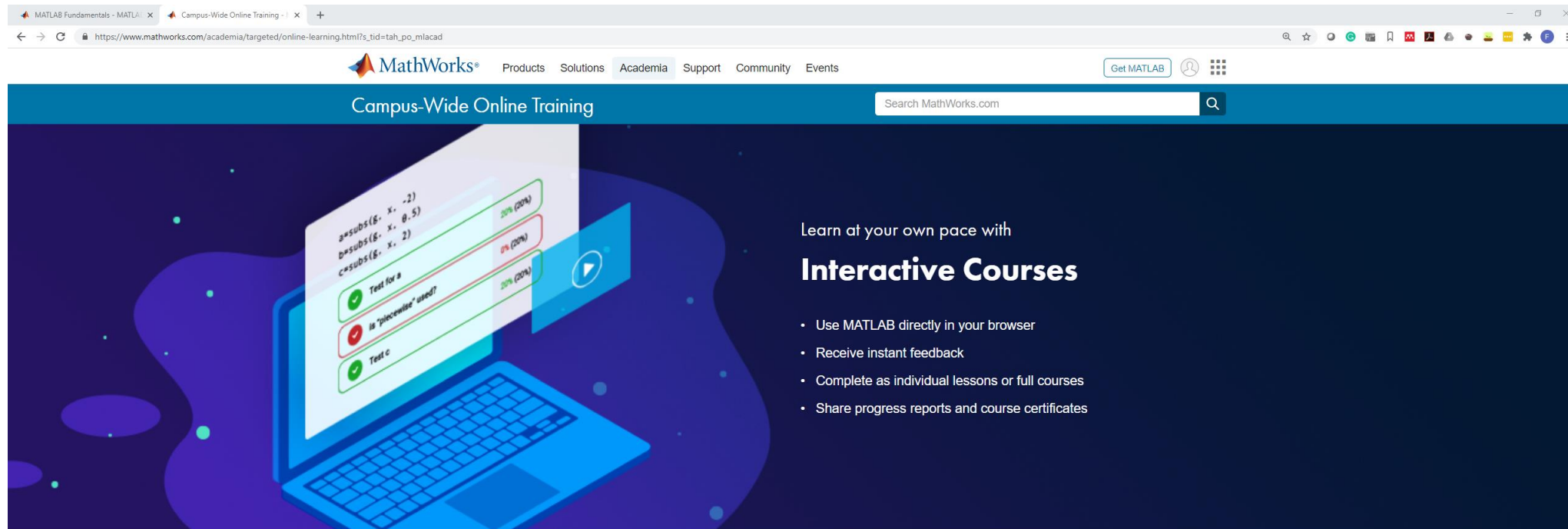
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A screenshot of a Google search result for "matlab academy". The browser's address bar shows the URL: https://www.google.com/search?q=matlab+academy&rlz=1C1GCEB_enIT865IT865&oq=MATLAB+ACA&aqs=chrome.0.35i39i457j69i57j0l2j69i60l2j69i61j69i65.1786j0j4&sourceid=chrome&ie=UTF-8. The Google logo is on the left, and the search bar contains "matlab academy". Below the search bar, navigation links for "All", "Videos", "Images", "News", "Maps", and "More" are visible, along with "Settings" and "Tools". The search results show "About 24,900,000 results (0.60 seconds)". The top result is from "matlabacademy.mathworks.com" with the title "MATLAB Academy - MathWorks". The description says: "Learn MATLAB for free with MATLAB Onramp and access interactive self-paced online courses and tutorials on Deep Learning, Machine Learning and more. You've visited this page many times. Last visit: 10/25/20". Below the title, there are two sections: "Training" with the text "MathWorks Training offers MATLAB and Simulink courses ..." and "MathWorks Certification Pr..." with the text "Sample exam questions - MATLAB Fundamentals - Practice Test - ...". On the right side, there is a box titled "People also search for" containing four suggestions: "simulink onramp", "matlab onramp solutions", "matlab academy website", and "how to download matlab onramp certificate".

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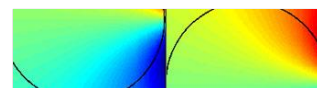

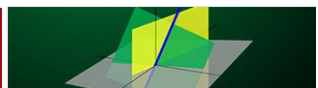


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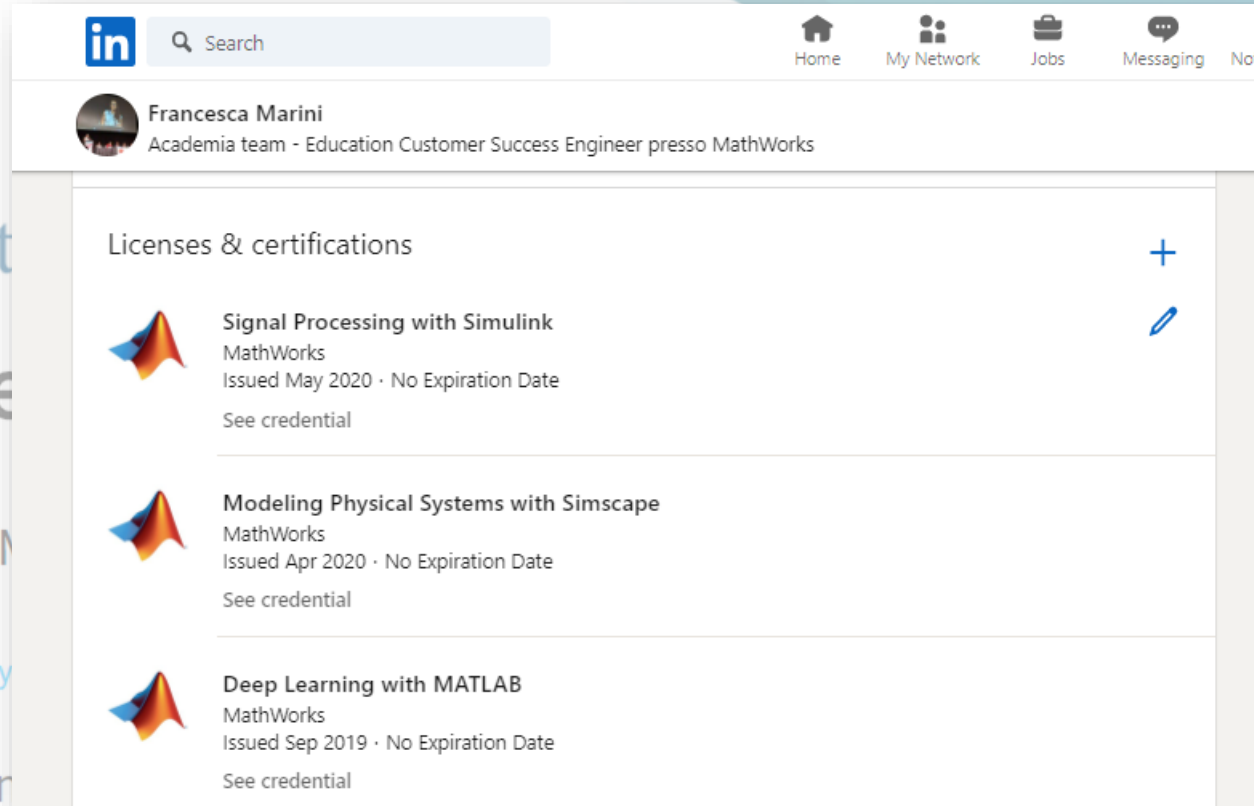
Francesca Marini

has successfully completed **100%** of the self-paced training course

Solving Nonlinear Equations with MATLAB


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19 September 2019



The screenshot shows a LinkedIn profile for Francesca Marini, who is a Customer Success Engineer at MathWorks. The 'Licenses & certifications' section lists three credentials:


Certification Title	Issued	Expiration
Signal Processing with Simulink	May 2020	No Expiration Date
Modeling Physical Systems with Simscape	Apr 2020	No Expiration Date
Deep Learning with MATLAB	Sep 2019	No Expiration Date


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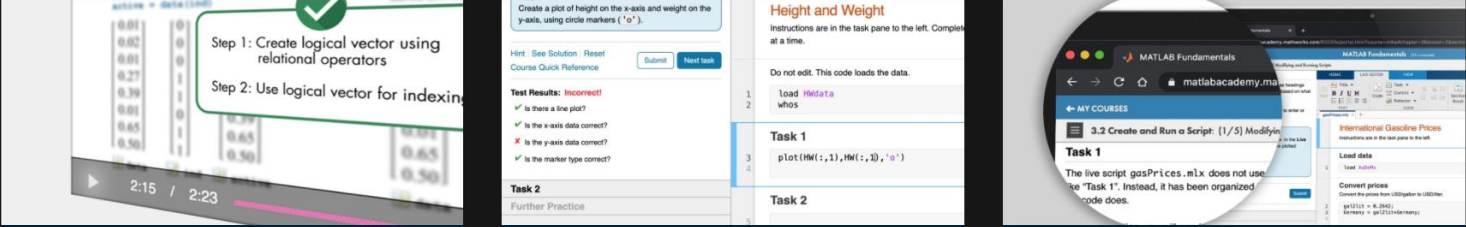
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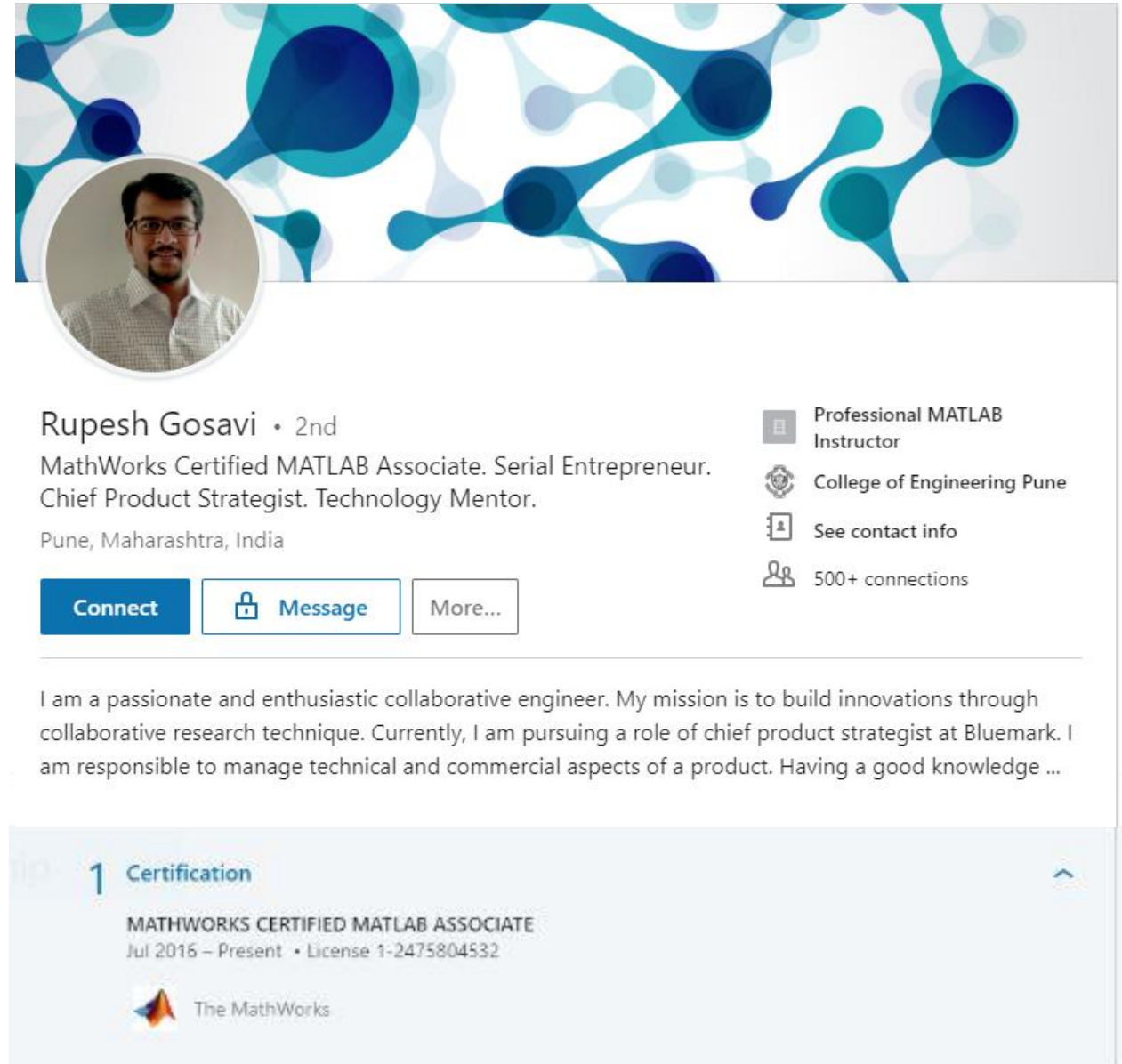
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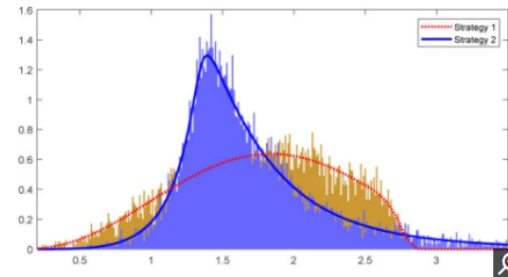
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Monte Carlo simulation results for empirical densities returns (bars) and theoretical densities returns (lines) for two dynamic strategies.

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