

Regression Tool

Get Data

D:\classes\data1_08\gui\data2.txt

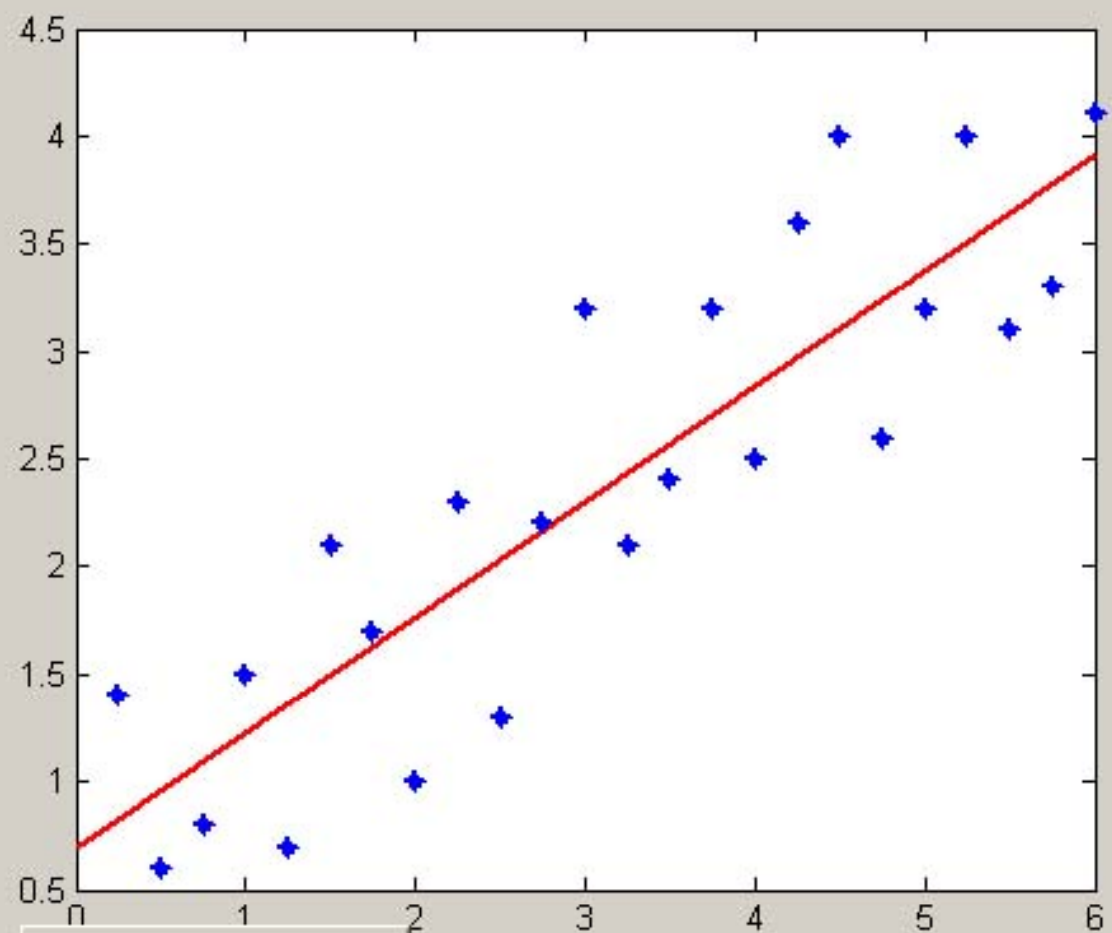
Slope Intercept

0.5358 0.6964

Residuals

-0.570
0.364
0.298
-0.268
0.666
-0.600
-0.066
0.768
-0.398
0.736
-0.030
-0.896
0.338
0.172
-0.494
0.340
-0.626
-0.892
0.642
0.176
-0.491
0.543

Run



Exit

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function varargout = regtool(varargin)
% REGTOOL M-file for regtool.fig
%   REGTOOL, by itself, creates a new REGTOOL or raises the existing
%   singleton*.
%
%   H = REGTOOL returns the handle to a new REGTOOL or the handle to
%   the existing singleton*.
%
%   REGTOOL('CALLBACK',hObject,eventData,handles,...) calls the local
%   function named CALLBACK in REGTOOL.M with the given input
arguments.
%
%   REGTOOL('Property','Value',...) creates a new REGTOOL or raises
the
%   existing singleton*. Starting from the left, property value
pairs are
%   applied to the GUI before regtool_OpeningFunction gets called.
An
%   unrecognized property name or invalid value makes property
application
%   stop. All inputs are passed to regtool_OpeningFcn via varargin.
%
%   *See GUI Options on GUIDE's Tools menu. Choose "GUI allows only
one
%   instance to run (singleton)".
%
% See also: GUIDE, GUIDATA, GUIHANDLES

% Edit the above text to modify the response to help regtool

% Last Modified by GUIDE v2.5 08-Dec-2008 23:26:44

% Begin initialization code - DO NOT EDIT
gui_Singleton = 1;
gui_State = struct('gui_Name',       mfilename, ...
                  'gui_Singleton',  gui_Singleton, ...
                  'gui_OpeningFcn', @regtool_OpeningFcn, ...
                  'gui_OutputFcn',  @regtool_OutputFcn, ...
                  'gui_LayoutFcn',  [], ...
                  'gui_Callback',    []);
if nargin && ischar(varargin{1})
    gui_State.gui_Callback = str2func(varargin{1});
end

if nargout
    [varargout{1:nargout}] = gui_mainfcn(gui_State, varargin{:});
else
    gui_mainfcn(gui_State, varargin{:});
end
% End initialization code - DO NOT EDIT

% --- Executes just before regtool is made visible.
function regtool_OpeningFcn(hObject, eventdata, handles, varargin)
% This function has no output args, see OutputFcn.
% hObject    handle to figure
% eventdata  reserved - to be defined in a future version of MATLAB
% handles    structure with handles and user data (see GUIDATA)
% varargin   command line arguments to regtool (see VARARGIN)

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% Choose default command line output for regtool
handles.output = hObject;

% Update handles structure
guidata(hObject, handles);
global HAVE_PLOT;
HAVE_PLOT=0;

% UIWAIT makes regtool wait for user response (see UIRESUME)
% uiwait(handles.figure1);

% --- Outputs from this function are returned to the command line.
function varargout = regtool_OutputFcn(hObject, eventdata, handles)
% varargout cell array for returning output args (see VARARGOUT);
% hObject handle to figure
% eventdata reserved - to be defined in a future version of MATLAB
% handles structure with handles and user data (see GUIDATA)

% Get default command line output from handles structure
varargout{1} = handles.output;

% --- Executes on button press in getdatabutton.
function getdatabutton_Callback(hObject, eventdata, handles)
% hObject handle to getdatabutton (see GCBO)
% eventdata reserved - to be defined in a future version of MATLAB
% handles structure with handles and user data (see GUIDATA)

[filename,pathname]=uigetfile('*.','Select File');
set(handles.edit1,'string',strcat(pathname,filename));

function edit1_Callback(hObject, eventdata, handles)
% hObject handle to edit1 (see GCBO)
% eventdata reserved - to be defined in a future version of MATLAB
% handles structure with handles and user data (see GUIDATA)

% Hints: get(hObject,'String') returns contents of edit1 as text
% str2double(get(hObject,'String')) returns contents of edit1 as
a double

% --- Executes during object creation, after setting all properties.
function edit1_CreateFcn(hObject, eventdata, handles)
% hObject handle to edit1 (see GCBO)
% eventdata reserved - to be defined in a future version of MATLAB
% handles empty - handles not created until after all CreateFcns
called

% Hint: edit controls usually have a white background on Windows.
% See ISPC and COMPUTER.
if ispc && isequal(get(hObject,'BackgroundColor'), get
(0,'defaultUiControlBackgroundColor'))
set(hObject,'BackgroundColor','white');
end

% --- Executes on selection change in listbox1.
function listbox1_Callback(hObject, eventdata, handles)

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% hObject    handle to listbox1 (see GCBO)
% eventdata  reserved - to be defined in a future version of MATLAB
% handles    structure with handles and user data (see GUIDATA)

% Hints: contents = get(hObject,'String') returns listbox1 contents as
cell array
%          contents{get(hObject,'Value')} returns selected item from
listbox1

% --- Executes during object creation, after setting all properties.
function listbox1_CreateFcn(hObject, eventdata, handles)
% hObject    handle to listbox1 (see GCBO)
% eventdata  reserved - to be defined in a future version of MATLAB
% handles    empty - handles not created until after all CreateFcns
called

% Hint: listbox controls usually have a white background on Windows.
%          See ISPC and COMPUTER.
if ispc && isequal(get(hObject,'BackgroundColor'), get
(0,'defaultUicontrolBackgroundColor'))
    set(hObject,'BackgroundColor','white');
end

% --- Executes on button press in runbutton.
function runbutton_Callback(hObject, eventdata, handles)
% hObject    handle to runbutton (see GCBO)
% eventdata  reserved - to be defined in a future version of MATLAB
% handles    structure with handles and user data (see GUIDATA)

global HAVE_PLOT

if(HAVE_PLOT ~= 0)
    cla
    end
datafile=get(handles.edit1,'string');
[x,y]=textread(datafile,'%f %f');
[nobs,k]=size(x);
B=zeros(nobs,2);
f=zeros(nobs,1);
for i=1:nobs
    B(i,:) = [-x(i) -1];
    f(i) = -y(i);
end
par=inv(B'*B)*B'*f;
v=f-B*par;
slope=par(1);
intcpt=par(2);

L=cell(nobs+4,1);
s='Slope  Intercept';
L(1)=cellstr(s);
s=sprintf('%8.4f %8.4f',slope,intcpt);
L(2)=cellstr(s);
s=(' ');
L(3)=cellstr(s);
s='Residuals';

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L(4)=cellstr(s);
for i=1:nobs
    s=sprintf('%8.3f',v(i));
    L(i+4)=cellstr(s);
end
set(handles.listbox1,'string',L);

axes(handles.axes1);
plot(x,y,'b*','linewidth',2);
hold on
lm=axis;
px=[lm(1) lm(2)];
py=[slope*lm(1)+intcpt    slope*lm(2)+intcpt];
plot(px,py,'r-','linewidth',2);
plot(x,y,'b*','linewidth',2);
HAVE_PLOT=1;

% --- Executes on button press in exitbuton.
function exitbuton_Callback(hObject, eventdata, handles)
% hObject    handle to exitbuton (see GCBO)
% eventdata  reserved - to be defined in a future version of MATLAB
% handles    structure with handles and user data (see GUIDATA)
closereq

```