

2025

PORTOFOLIO

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TENTANG SAYA

AYU SANGRILA

Lulusan S1 Pendidikan Matematika dan S2 Statistika Terapan dengan minat besar dalam analisis data dan pengolahan informasi untuk mendukung pengambilan keputusan berbasis data. Memiliki pemahaman dalam mengelola data, membangun model statistik, serta menginterpretasikan hasil analisis untuk kebutuhan bisnis dan penelitian. Memiliki keterampilan dalam analisis statistik, pemodelan prediktif, dan visualisasi data. Berorientasi pada detail, mampu bekerja secara cermat dan teliti, dan siap berkontribusi dalam mengubah data menjadi informasi yang bermanfaat.

EDUCATIONS

S1 Pendidikan Matematika (2017-2021)
Universitas Negeri Padang - IPK 3.36



S2 Statistika Terapan (2023-2025)
Universitas Padjadjaran - IPK 3.71





PENGALAMAN ORGANISASI

Maret 2019 - Maret 2020

STAFF AHLI PSDM- BEM FMIPA UNIVERSITAS NEGERI PADANG

- Mengadakan beberapa kegiatan seperti pelatihan kepemimpinan, workshop mahasiswa, mengadakan forum ilmiah mahasiswa (FOIM) serta mengadakan kegiatan kaderisasi yang akan menjadi anggota baru
- Menjalankan tugas sebagai wakil ketua pelaksana, koordinator acara, dan bendahara pada berbagai kegiatan kemahasiswaan
- Menganalisis feedback dari peserta, membuat laporan evaluasi kegiatan, dan menyajikan data dalam presentasi
- Membuat strategi pengembangan sumber daya mahasiswa ke depannya yang berbasis data hasil feedback dan evaluasi sebelumnya

PENGALAMAN ORGANISASI



PUBLIKASI & PENELITIAN

Nasional
·Journal Of Social Science Research



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Vol. 4 No. 1 (2024): Innovative: Journal Of Social
Science Research
/
Articles

Peramalan Deret Waktu Curah Hujan Di Kota Cirebon Menggunakan ARFIMA

Muhammad Rhafi Ahdian
Universitas Padjadjaran

Ayu Sangrila
Universitas Padiadiaran

Internasional

Communications in Mathematical Biology and
Neuroscience (CMBN)



Available online at <http://scik.org>
Commun. Math. Biol. Neurosci. 2025, 2025:28
<https://doi.org/10.28919/cmbn/9079>
ISSN: 2052-2541

MODEL-BASED CLUSTERING APPROACH FOR CLUSTERING OF HEART DISEASE PATIENTS BASED ON RISK FACTORS

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Abstract: Cardiovascular disease causes the most non-communicable disease deaths or 17.9 million people each year. One of the efforts that can be made to reduce the threat of heart disease death is the grouping of heart disease patients based on their risk factors. The risk factors are age, blood pressure, cholesterol, and maximum heart rate. The data in this study is continuous data with mixed distribution and cluster uncertainty. This research suggests a model-based clustering approach based on finite mixture models. This approach assumes that the data is generated by a mixture of probability distributions, where each distribution represents different clusters with different parameters. Model-based clustering allows each individual to have a probability value to enter another cluster, making it suitable when there is cluster uncertainty and determining the number of clusters can be done automatically. Therefore, clustering is performed using model-based clustering to automatically determine the optimal number of clusters and identify cluster uncertainty. Parameters of the model are estimated using the Expectation Maximization (EM) algorithm. The best model selection is determined based on the Bayesian Information Criterion (BIC) values. The clustering results obtained the best model EEI with the optimal number of clusters as many as two Clusters.

Keywords: model-based clustering; finite mixture models; EM algorithm; heart disease.

2020 AMS Subject Classification: 62P10.

Bahasa Inggris
yang didapatkan dari
tes TOEFL

KETERAMPILAN

ENGLISH LANGUAGE TEST (ELT) SCORE RECORD

| | | | |
|--|----------------------------------|-----------------------|---------------|
| Name : | Ayu Sangrila | Certificate Number: | 40423000719 |
| DOB : | 27-08-1998 | Sex: | Female |
| Scaled Scores: | Test Date : April 8, 2023 | | |
| Listening Comprehension: | 47 | Valid Until : | April 8, 2025 |
| Structure and Written Expression: | 53 | ENGLISH LANGUAGE TEST | |
| Reading Comprehension: | 43 | Student's File Copy | |
| Total Score: | 477 | Do Not Copy | |
| Head of Language Center | | | |
| Dean | | | |
| Prof. Aquarini Priyatna, M.A., M.Hum., Ph.D. | | | |
| NIP 196806011994032003 | | | |

CENTRAL COURSE

NO. SK Diknas 421.9/ 2938 /418.20/2021
Glagah Street No. 4, Tulungrejo, Pare, Kediri, East Java
Cp. 082234441495. Pos Code 64212



CERTIFICATE OF ACHIEVEMENT

This is to certify that

AYU SANGRILA

achieved the following scores on the

TOEFL PREDICTION Test

| | |
|---------------------------------|-----|
| Listening Comprehension: | 49 |
| Structure & Written Expression: | 45 |
| Reading Comprehension: | 50 |
| Score Toefl: | 480 |

Test Date : August 13, 2023
Valid Until : August 13, 2025



Basis Data

Membuat database dengan menggunakan bahasa SQL

The screenshot shows the phpMyAdmin interface for a database named 'perizinan_kuliah'. The left sidebar lists tables: 'dosen', 'info_tugas', 'mahasiswa', and 'mata_kuliah'. The main area displays the structure of the 'dosen' table, which has columns: ID, NIM, KODE_MATA_KULIAH, TUGAS, DEADLINE, KETERANGAN, ACTION, Rows (6), Type (InnoDB), Collation (utf8mb4_general_ci), Size (32.0 Kib), and Overhead (-). To the right, there is a separate window titled 'Daftar Info Tugas' showing a list of tasks with columns: ID, NIM, KODE_MATA_KULIAH, TUGAS, DEADLINE, KETERANGAN, and ACTIONS.

Python

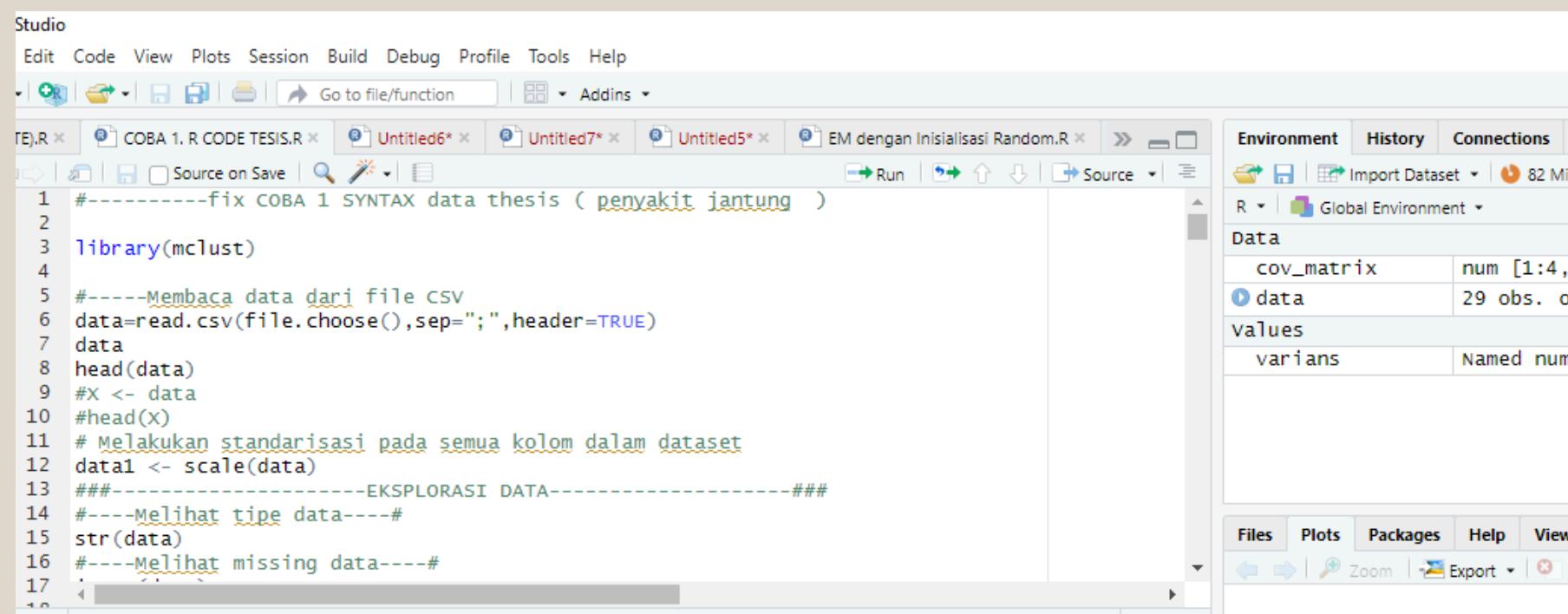
Mampu mengerjakan beberapa projek dengan menggunakan software Python

The screenshot shows a Jupyter Notebook cell with the title 'TUGAS DAMIN STATDES.ipynb'. The code cell contains the following Python code:import pandas as pd
path = "epl-goalScorer(20-21).csv"
df = pd.read_csv(path)
dfBelow the code cell, the resulting DataFrame is displayed with columns: Unnamed: 0, id, player_name, games, time, goals, xG, assists, xA, shots, key_passes, yellow_cards, red_cards, position, team_title, npg, npx6. The data includes rows for Harry Kane, Mohamed Salah, Bruno Fernandes, and Son Heung-Min.

KETERAMPILAN

R-Studio

Menganalisis beberapa data dengan menggunakan software R-Studio. begitupula analisis data tesis juga menggunakan R-Studio



The screenshot shows the R-Studio interface. The top menu bar includes Studio, Edit, Code, View, Plots, Session, Build, Debug, Profile, Tools, and Help. Below the menu is a toolbar with various icons. The main area has several tabs open: COBA 1. R CODE TESIS.R, Untitled6*, Untitled7*, Untitled5*, and EM dengan Inisialisasi Random.R. The code editor contains R script code:

```
1 #-----fix COBA 1 SYNTAX data thesis ( penyakit jantung )
2
3 library(mclust)
4
5 #-----Membaca data dari file csv
6 data=read.csv(file.choose(),sep=";",header=TRUE)
7 data
8 head(data)
9 #X <- data
10 #head(X)
11 # Melakukan standarisasi pada semua kolom dalam dataset
12 data1 <- scale(data)
13 #####-----EKSPLORASI DATA-----#####
14 #----Melihat tipe data----
15 str(data)
16 #----Melihat missing data----#
17
```

The environment browser on the right shows the global environment with objects like cov_matrix, data, values, and varians.



The screenshot shows a Windows File Explorer window with the following details:

Path: D:\AYU SANGRILA, S.Pd, M.Si (D:) \ A1. Materi S2 Statistika UNPAD \ MULTIVARIAT \ PRATIKUM

| Name | Date modified | Type | Size |
|--------------------------------------|------------------|----------------------|-------|
| ADM2_Normal Mutivariat | 22/09/2023 17:11 | R File | 1 KB |
| ANALISIS CLUSTER_21-11-23 | 21/11/2023 14:52 | R File | 2 KB |
| ANALISIS FAKTOR & BIPILOT (14-11-23) | 14/11/2023 14:12 | R File | 2 KB |
| Analisis Korespondensi (28-11-23) | 28/11/2023 14:24 | R File | 1 KB |
| Bank_Data | 07/11/2023 13:24 | Microsoft Excel W... | 16 KB |
| BusPassenger | 28/11/2023 13:18 | Microsoft Excel W... | 10 KB |
| ChemReac | 03/11/2023 8:06 | Microsoft Excel W... | 10 KB |
| Food | 14/11/2023 13:17 | Microsoft Excel W... | 11 KB |
| Geografis | 28/11/2023 13:18 | Microsoft Excel W... | 10 KB |
| Health | 03/11/2023 8:06 | Microsoft Excel W... | 10 KB |
| K-Means Clustering Skripsi untuk Nia | 06/12/2023 11:57 | R File | 5 KB |
| MDS (28-11-23) | 28/11/2023 14:25 | R File | 2 KB |
| pratikum multivariat | 08/09/2023 14:29 | R File | 1 KB |
| PRATIKUM PCA | 07/11/2023 14:16 | R File | 4 KB |
| REGRESI MULTIV DAN KORELASI KANONIK | 03/11/2023 9:15 | R File | 3 KB |
| Syntax tugas multivariate | 23/09/2023 12:21 | R File | 6 KB |

WORKSHOP, SEMINAR, PELATIHAN





GET IN TOUCH

Let's Collaborate!



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THANK YOU