Analysis Of Student Satisfaction Level In The Faculty Of Science And Technology Using The Convolution Neural Network Method

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Abstract.
The Faculty of Science and Technology at Labuhanbatu University is one of the leading faculties that focuses on the development of science and technology. This faculty offers various study programs designed to prepare students to face the challenges of the digital era and industrial revolution 4.0. This research, using survey and interview methods, aims to collect accurate and objective data regarding student perceptions and experiences in various aspects, such as the quality of educational services, quality of teaching, and available supporting facilities such as extracurricular activities, seminars and research projects, ease of access. information and academic support from optimal staff and teaching staff.

Keywords: *Convolution Neural Network, Analysis of Student Satisfaction Levels at the Faculty of Science and Technology, Labuhanbatu University.*

I. INTRODUCTION

The Faculty of Science and Technology at Labuhanbatu University is one of the leading faculties that focuses on the development of science and technology. This faculty offers various study programs designed to prepare students to face the challenges of the digital era and industrial revolution 4.0. With a comprehensive curriculum and supported by experienced teaching staff, this faculty aims to produce graduates who are competent, innovative and ready to compete at national and international levels. Laboratories equipped with modern facilities and diverse research activities provide students with the opportunity to hone their practical and theoretical skills. The Faculty of Science and Technology, Labuhanbatu University is also active in collaborating with various institutions, industries and research institutions, both domestically and abroad. This aims to expand networks and provide students with the opportunity to be involved in research projects that are applicable and beneficial to society. Apart from that, this faculty also holds various seminars, workshops and other academic activities to increase students' knowledge and skills in the fields of science and technology.

This research will be carried out using a data mining approach via the Convolutional Neural Network (CNN) method. The CNN method was chosen because of its superior ability in processing image-based and complex data, although in this research, the data that will be used is survey data. CNN is well-known in the world of data processing because of its adaptability in handling various types of datasets, including non-image data, by converting the data into a format that can be processed by the network. In the context of this research, CNN will be applied to analyze the level of satisfaction of students at the Faculty of Science and Technology, which includes various important parameters such as the quality of teaching, facilities, and academic support provided by the faculty.By using CNN, this research aims to extract important features from survey data that may be difficult to identify through conventional methods. CNN is able to detect hidden patterns and trends in the data, thereby providing deeper insight into the factors that influence student satisfaction.

II. METHODS

The research method used in this study is Convolutional Neural Network (CNN), a deep learning technique that is effective in processing complex data and extracting features from datasets. CNN will be applied to analyze survey data on student satisfaction levels at the Faculty of Science and Technology, Labuhanbatu University. With its ability to detect patterns and features from large data, CNN is expected to be able to provide more accurate and in-depth analysis results on various aspects of student satisfaction, such as the quality of teaching, facilities and academic services.

The use of CNN in this research allows researchers to capture relationships that may be hidden in survey data that cannot be identified with traditional analysis methods. By utilizing this technique, this research aims to provide sharper insight into the factors that influence student satisfaction at the Faculty of Science and Technology, as well as to evaluate the effectiveness of the CNN method in increasing the accuracy of data analysis. The results of this research will provide a strong basis for recommendations for improvement and development of strategies to improve the quality of education at the faculty

III. INFORMATION SYSTEM ANALYSIS

1.1. Problem Analysis

This research will be carried out at Labuhanbatu University, specifically at the Faculty of Science and Technology. The research time is scheduled for May, when the process of data collection and analysis will be carried out to assess the level of student satisfaction with various aspects provided by the faculty. This research location on campus allows direct access to relevant data sources and facilitates interaction with students, as well as supporting the implementation of research more effectively and efficiently.

1.2. Analysis of the running system

In this research, the tools used include laptops for data processing and analysis using software such as Orange, stationery for recording data during surveys, and cellphones for communication and data collection. The research time is scheduled for May, when these tools will be used intensively to collect and analyze data from students of the Faculty of Science and Technology, Labuhanbatu University. By using these tools and materials, the research aims to gain in-depth insight into the level of student satisfaction with various aspects of the faculty.

1.3. Data Processing System Analysis

The research method used in this study is Convolutional Neural Network (CNN), a deep learning technique that is effective in processing complex data and extracting features from datasets. CNN will be applied to analyze survey data on student satisfaction levels at the Faculty of Science and Technology, Labuhanbatu University. With its ability to detect patterns and features from large data, CNN is expected to be able to provide more accurate and in-depth analysis results on various aspects of student satisfaction, such as the quality of teaching, facilities and academic services.The use of CNNs in this research allows researchers to capture relationships that may be hidden in survey data that cannot be identified with traditional analysis methods. By utilizing this technique, this research aims to provide sharper insight into the factors that influence student satisfaction at the Faculty of Science and Technology, as well as to evaluate the effectiveness of the CNN method in increasing the accuracy of data analysis. It is hoped that the results of this research will provide a strong basis for recommendations for improvement and development of strategies to improve the quality of education at the faculty.

IV. SYSTEM DESIGN

1. Data Science

According to Ibnu Mansyur Hamdani at all (2023) In simple terms, Data Science is a science that studies several areas of expertise needed to produce insights that are useful in making decisions based on data. These skills can be seen in Figure 2.1. Data Science Venn Diagrams.

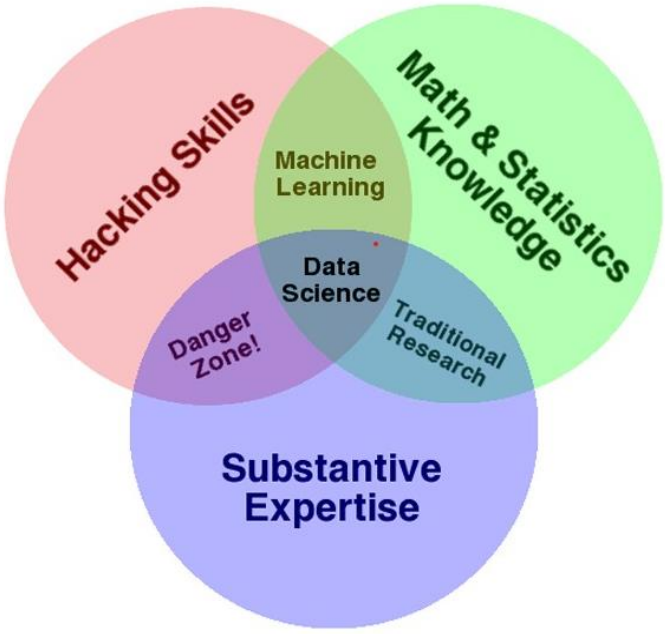

Fig 2.1. Data Science Venn Diagrams

Based on the definition of Data Science which states that there is insight to be gained, in this activity the participants were presented with several projects and research that could be carried out as a reference for them later in studying DS. Examples of projects given include providing book recommendations based on books previously read by the reader.Job prospects in the world of Data Science are wide open for the next few years. This is because the data that can be obtained is getting faster due to the faster internet, this data is known as Big Data. In 2012, the job of Data Scientist was the sexiest job and until now this job is still the sexiest job because many companies have Big Data and realize that they need workers who are able to process this data.Errors in analyzer specifications can have fatal consequences for conclusions and even worse for the use and application of research results.Knowledge and understanding of various analytical techniques is therefore absolutely necessary for a researcher so that the results of his research can make a significant contribution to solving problems and the results can be justified scientifically. Data analysis is the core of Data Science, and the methods used can include descriptive statistics, hypothesis testing, machine learning, and other techniques.Graphics and visualizations help present information in a way that is easy to understand and help stakeholders make informed decisions. Additionally, Data Science also involves developing technology-based solutions to process and analyze data efficiently.

This can include the use of cloud technologies, parallel processing, and other infrastructure.According to Ahlan Syaeful Millah at all (2023) Data analysis is a research process that is carried out after all the information needed to solve the problem being studied is fully available. The sharpness and accuracy of using analytical tools greatly determines the accuracy of conclusions. Therefore, data analysis activities are activities that cannot be ignored in the research process. Errors in analyzer specifications can have fatal consequences for conclusions and even worse for the use and application of research results.These steps are important in ensuring that the CNN model that will be used can work well and produce output that is accurate and relevant to the research objectives.According to D Gunawan and H Setiawan (2022) Convolutional Neural Network (CNN) is a deep learning method that is widely used in computer vision, such as classification. Apart from that, the integration of Data Science with CNN in this research also opens up opportunities to carry out more in-depth model evaluations. By utilizing evaluation techniques in Data Science, such as cross validation and error analysis, researchers can better measure model performance and ensure that the results obtained are not only accurate but can also be generalized to other data.

2. Data Mining

According to Putri Violita at all (2023) Data mining is also one way to determine the level of visitor satisfaction. Data mining is processed using an algorithm that can find knowledge with statistical and mathematical techniques. Data mining functions to handle a large amount of data. This data mining process will be carried out by considering the amount of data to be processed. To carry out data mining, researchers will need a method to classify data on the level of visitor satisfaction. According to Andik at all (2022) One method that can be used to analyze a database is data mining technology. Data mining technology or data mining is the process of obtaining knowledge or patterns from data sets. Data mining solves problems by analyzing data that already exists in the database. There are many ways to process data in data mining.According to Volvo Sihombing and Gomal Juni Yanris (2023) Applications are programs that can directly carry out processes used on computers by users. An application is a collection of certain files that contain program code that connects the user and computer hardware.

A system is a form of network that is interconnected between units. Information systems are the presentation of computerized information properly and correctly. Information is like blood that flows in the human body. The meaning of this sentence is that information is very important in an organization.A system is a form of network that is interconnected between units. Information systems are the presentation of computerized information properly and correctly. Information is like blood that flows in the human body. The meaning of this sentence is that information is very important in an organization.According to Dikri Salik Amaruloh (2023) Data is a collection of facts that have been collected and processed or intended to be processed into data so that it becomes something that can be understood by other people. The general definition of information is a collection of raw information or facts, in the form of symbols, numbers, words or images, obtained through observation or by searching for certain sources.One important aspect of Data Mining is the use of algorithms to recognize patterns in data. This can include data clustering, classification, regression, and association.According to Awaludin Abid and Rainaldi Putra Setiawan (2023) Clustering is the process of dividing objects from a data set into several homogeneous clusters. The main goal of the cluster method is to group a number of data/objects into clusters (groups) so that each cluster contains data that is as similar as possible.Clustering divides data into groups based on similarities between data, without requiring predetermined labels. This technique is often used in market segmentation, where companies can group customers based on their preferences.

According to Anton Saputra at all (2023) Association rules are a descriptive data mining task that is useful for finding relationship patterns between data items. The main thing that is of concern in association rules is obtaining frequent patterns, namely knowing how often a combination of items appears in the database.

3. Databases and Data ProcessingL

According to Abdul Latif Ali at all (2022) A database is a collection of information stored in a computer systematically so that it can be checked using a computer program to obtain information from the database. Databases are used to store information or data that is well integrated in a computer.The main purpose of a database is to provide an efficient way to store, manage, and access data. Databases can be used for a variety of purposes, from supporting daily business operations to supporting complex software applications. They provide a defined structure for storing data, allowing users to perform operations such as adding, deleting, and searching data easily. Common database types include relational databases, NoSQL databases, and various other database models

4. Visualisation

According to Tiar Imam Muarif and Raditya Danar Dana (2024), data visualization means efforts to describe data in visual form to help individuals understand information by presenting data visually and placing it in a context that is more clearly analyzed so that it will enable a government agency or company to be able to make decisions. after the data has been transformed into a visual context using Tableau. Visualization is a process of representing data and information in graphic or

visual form to facilitate understanding and analysis.The main goal of visualization is to present complex information in an easy-to-understand manner, allowing users to see patterns, trends, and relationships that may be difficult to see in raw data form.Graphs and visualizations play an important role in revealing patterns in data, providing context to changes over time, and assisting in the identification of significant anomalies or trends.

5. Statistics

According to Thomas Kartomo at all (2024) Statistics is a science that studies how to plan, collect, analyze, interpret and present data. Statistics is a branch of mathematics concerned with the collection, analysis, interpretation, presentation and organization of data. The main purpose of statistics is to present and analyze information that can provide insight or support decision making.

6. Pattern Recognition

According to Novan Wijaya at all (2019) Pattern recognition is a science of classifying or describing something based on quantitative measurements of the main features or characteristics of an object. Pattern Recognition is a branch of science that deals with the identification, interpretation, and classification of patterns in data. The goal is to develop models or algorithms that can understand the structure in data and recognize patterns that can provide valuable information. It can be applied in a variety of contexts, including image processing, speech recognition, handwriting recognition, and other fields involving complex data analysis.

7. Classification Models

According to Ekin Adhi Guna at all 2023) Classification is the process of searching for a set of models, patterns or functions that describe and differentiate data objects to be grouped into certain classes from a number of available classes. In classification, the process of looking for the characteristics of an object is carried out, then objects with the same characteristics are put into one of the classes that have been defined first. A classification model is a form of machine learning algorithm that is used to group or categorize data into predetermined classes or categories. The goal is to build a function or model that can map input data into output classes with a high level of accuracy.

8. Convolution Neural Network (CNN) Method

According to D Gunawan and H Setiawan (2022) the Convolutional Neural Network (CNN) method is a deep learning method that is widely used in computer vision, such as classification. Convolutional Neural Network (CNN) is a type of artificial neural network architecture that is very effective for processing grid-shaped data, such as images and videos. CNNs are known for their ability to automatically recognize patterns and features from input data without requiring complex preprocessing. This method uses convolution layers, which function to extract important features from data, such as edges, textures, and shapes, which are then used to perform classification or other tasks. CNNs are very popular in the field of image recognition, such as object classification, object detection, and image segmentation

9. Program Tools/Supporting Tools

9.1. Orange

According to Kharits Abdul Khalim at all (2023) Orange is open source software for processing analytical data or data mining. Compared to other data mining software, Orange is superior in terms of visualization or what is usually called visual programming. Orange has provided many widgets that have been placed on a canvas or drawing board which can then be connected to other widgets. Through this canvas media, it can make it easier for users to play with data and carry out data analysis processes intuitively. Each existing widget has its own function and can receive input and produce output.One of Orange's strengths is its focus on interactive data visualization. Users can build workflows by compiling and connecting widgets that include data processing, visualization, feature extraction, and model building functions.

Orange also provides a variety of machine learning algorithms accessible through its visual interface, allowing users to select, configure, and analyze models without having to write code. The platform supports a number of data analysis tasks, including classification, regression, clustering, and

association analysis. Orange also gives users the flexibility to explore data, identify patterns, and gain deep insight into the characteristics of their dataset.

V. SYSTEM IMPLEMENTATION

1. System Implementation

At this stage, this process aims to determine the data that will be used in this research. The necessary data will be collected systematically so that research can be carried out well and precisely.

2. Data Preprocessing

The data preprocessing process is an important stage in analysis which includes cleaning, organizing and preparing datasets to improve quality before analysis. This stage includes handling missing data, normalization, coding categorical variables, and removing outliers. With good preprocessing, data quality can be improved, thus supporting the accuracy and consistency of analysis results.

3. Training Data

Training data is data that will be used to help the data classification process. So the training data that will be used is 14 data. The training data will be presented in table form as follows.

Table 4.1. Training Data

No.	Nama Lengkap	Pelayanan Biro	Kenyamanan	Kebersihan Ruang Kelas	Sikap Dosen	Kategori
1	Adek santika	Friendly	Comfortable	Not Clean	Friendly and Kind	Satisfied
2	Ardiansyah	Friendly	Comfortable	Clean	Friendly and Kind	Puas
3	Arief syaputra	Indifferent	Uncomfortable	Not Clean	Ignorant and Late Entering the Room	Not Satisfied
4	Eka Nurjanah	Friendly	Comfortable	Not Clean	Friendly and Kind	Satisfied
5	Elfi rahmayani	Friendly	Comfortable	Not Clean	Friendly and Kind	Satisfied
6	Eva harmikah	Friendly	Comfortable	Not Clean	Friendly and Kind	Satisfied
7	Farhan zam zami	Friendly	Comfortable	Clean	Ignorant and Late Entering the Room	Satisfied
8	Fitri Rahmadani	Friendly	Comfortable	Not Clean	Friendly and Kind	Satisfied
9	Lianah	Friendly	Uncomfortable	Clean	Friendly and Kind	Satisfied
10	Nisa rambe	Friendly	Comfortable	Not Clean	Friendly and Kind	Satisfied
11	Nova indah yanti	Indifferent	Comfortable	Clean	Ignorant and Late Entering the Room	Not Satisfied
12	Rahma syahputri	Indifferent	Comfortable	Clean	Friendly and Kind	Satisfied
13	Sri melyani	Indifferent	Comfortable	Not Clean	Friendly and Kind	Not Satisfied
14	Surya Anggara	Friendly	Uncomfortable	Not Clean	Ignorant and Late Entering the Room	Not Satisfied

The table above shows the training data that will be used in the classification process, which consists of 14 student data from the Faculty of Science and Technology.

4. Data Testing

Testing data is data that will later become a research sample in data mining using the Convolution Neural Network method. The testing data that will be used is as follows.

Table 4.1. Data Testing

No.	Nama Lengkap	Pelayanan Biro	Kenyamanan	Kebersihan Ruang Kelas	Sikap Dosen
1	Ade Eka apriani	Friendly	Comfortable	Not Clean	Friendly and Kind
2	Ade santika	Friendly	Comfortable	Not Clean	Friendly and Kind
3	Anggo sofiani	Friendly	Comfortable	Clean	Friendly and Kind
4	Arvida	Indifferent	Comfortable	Clean	Ignorant and Late Entering the Room
5	Aulia Rahma	Friendly	Comfortable	Clean	Friendly and Kind
6	Belinda sirait	Friendly	Comfortable	Clean	Friendly and Kind
7	Berkah	Friendly	Comfortable	Not Clean	Friendly and Kind
8	Cinrewina purba	Friendly	Comfortable	Clean	Friendly and Kind
9	Dewi siregar	Friendly	Comfortable	Not Clean	Friendly and Kind
10	Diko Pradana	Friendly	Comfortable	Clean	Friendly and Kind

11	Dinda Julia Arfah	Friendly	Comfortable	Clean	Ignorant and Late Entering the Room
12	Egi ok	Friendly	Comfortable	Clean	Friendly and Kind
13	Gunawan	Friendly	Comfortable	Clean	Friendly and Kind
14	Holong marhula sihite	Friendly	Comfortable	Not Clean	Friendly and Kind
15	Ilham rafael	Friendly	Comfortable	Not Clean	Friendly and Kind
16	Laila sari	Friendly	Comfortable	Clean	Friendly and Kind
17	Melisa	Friendly	Comfortable	Clean	Friendly and Kind
18	Murni rambe	Friendly	Comfortable	Clean	Friendly and Kind
19	Murni zaliah nurpah	Friendly	Comfortable	Clean	Friendly and Kind
20	Nia Aulia Sari Lubis	Indifferen	Uncomfortable	Not Clean	Ignorant and Late Entering the Room
21	Nova tresia pasaribu	Friendly	Comfortable	Not Clean	Friendly and Kind
22	Novira Dwi andini	Friendly	Comfortable	Clean	Friendly and Kind
23	Nur putry	Friendly	Comfortable	Clean	Friendly and Kind
24	Nurhalima Tambunan	Friendly	Comfortable	Clean	Friendly and Kind
25	Nurul fatma	Friendly	Comfortable	Clean	Friendly and Kind
26	Nurulhuda	Friendly	Comfortable	Clean	Friendly and Kind
27	Putra Andika Rtg	Friendly	Uncomfortable	Not Clean	Ignorant and Late Entering the Room
28	Rahmadhani Rtg	Friendly	Comfortable	Not Clean	Friendly and Kind
29	Restu Fauzi naibaho	Friendly	Comfortable	Clean	Friendly and Kind
30	Rifki Agustiawan	Friendly	Comfortable	Clean	Friendly and Kind
31	Riski amansyah	Friendly	Comfortable	Not Clean	Friendly and Kind
32	Risky Amaldi Harahap	Friendly	Uncomfortable	Clean	Friendly and Kind
33	Risky Amaldi Harahap	Friendly	Comfortable	Not Clean	Friendly and Kind
34	Roby gusmawan sirait	Friendly	Comfortable	Not Clean	Friendly and Kind
35	Ruswanto	Friendly	Comfortable	Clean	Friendly and Kind
36	Salman Al farisi	Indifferen	Comfortable	Clean	Friendly and Kind
37	Somi hosni	Friendly	Comfortable	Clean	Friendly and Kind
38	Taufik molid Hidayat	Friendly	Comfortable	Clean	Friendly and Kind
39	Tomi Hidayat	Friendly	Comfortable	Not Clean	Friendly and Kind
40	Tongku Hamonangan	Friendly	Comfortable	Not Clean	Friendly and Kind
41	Vina Tiara mahani	Friendly	Comfortable	Clean	Friendly and Kind
42	Wulan Safitri	Friendly	Comfortable	Clean	Friendly and Kind
43	Yayuk eriani	Friendly	Comfortable	Not Clean	Friendly and Kind
44	Yuni Franata	Friendly	Comfortable	Clean	Friendly and Kind
45	Yuni Saputri	Indifferen	Comfortable	Not Clean	Friendly and Kind

In the table above is the research sample data that will be used in this research regarding the satisfaction of students and female students at the Faculty of Science and Technology using data mining methods. The total sample data used was 45 university students, which was obtained through distributing questionnaires to them.

5. Establishment and Testing of the CNN Method Model

The formation of this model is a system design that will be used to analyze the level of satisfaction of students at the Faculty of Science and Technology. This system will later be used to classify the level of satisfaction using the Convolution Neural Network (CNN) method.The method used is in the black box, which is a widget for classifying the level of satisfaction of students using the Convolution Neural Network method.In the image below, a system designed using the Orange application is shown to analyze the level of satisfaction of students at the Faculty of Science and Technology.

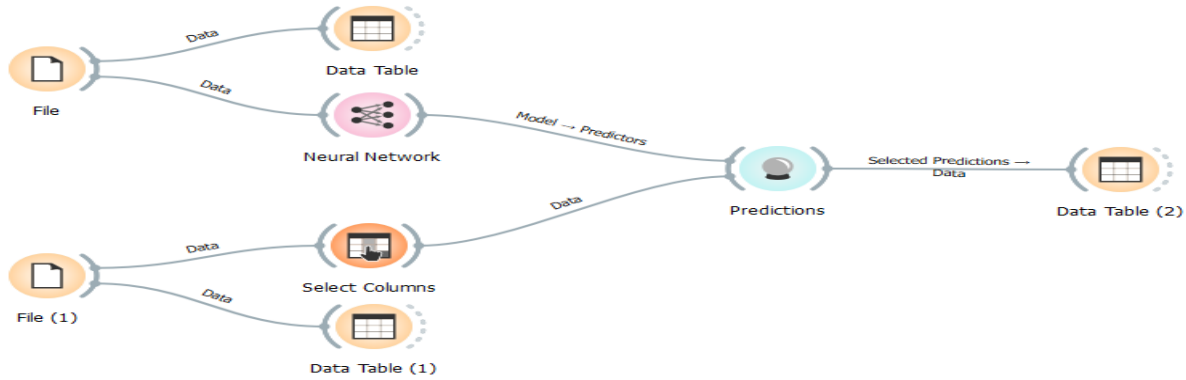

Fig 4.1. Widget Patterns in Data Mining

6. Classification Results of the Convolution Neural Network Method Model

At this stage, it is the result of classification in analyzing the level of satisfaction of students at the Faculty of Science and Technology using the Convolution Neural Network method. Of the 45 data used, 45 data showed that students were satisfied, while 4 data showed that they were not satisfied. These results explain that the majority of students are satisfied with the services and facilities available at the Faculty of Science and Technology. The classification results table can be seen in the table below.

Table 4.3. Classification Results and Model Predictions

No.	Nama Lengkap	Pelayanan Biro	Kenyamanan	Kebersihan Ruang Kelas	Sikap Dosen
1	Ade Eka apriani	Friendly	Comfortable	Not Clean	Friendly and Kind
2	Ade santika	Friendly	Comfortable	Not Clean	Friendly and Kind
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14	Holong marhula sihite	Friendly	Comfortable	Not Clean	Friendly and Kind
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16	Laila sari	Friendly	Comfortable	Clean	Friendly and Kind
17	Melisa	Friendly	Comfortable	Clean	Friendly and Kind
18	Murni rambe	Friendly	Comfortable	Clean	Friendly and Kind
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24	Nurhalima Tambunan	Friendly	Comfortable	Clean	Friendly and Kind
25	Nurul fatma	Friendly	Comfortable	Clean	Friendly and Kind
26	Nurulhuda	Friendly	Comfortable	Clean	Friendly and Kind
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29	Restu Fauzi naibaho	Friendly	Comfortable	Clean	Friendly and Kind

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41	Vina Tiara mahani	Friendly	Comfortable	Clean	Friendly and Kind
42	Wulan Safitri	Friendly	Comfortable	Clean	Friendly and Kind
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44	Yuni Franata	Friendly	Comfortable	Clean	Friendly and Kind
45	Yuni Saputri	Indifferen	Comfortable	Not Clean	Friendly and Kind

7. Evaluation of the Convolution Neural Network Method Model

Model evaluation is an important step to determine the level of accuracy of the method used, with the aim of assessing the extent to which the method is effective in classifying data.

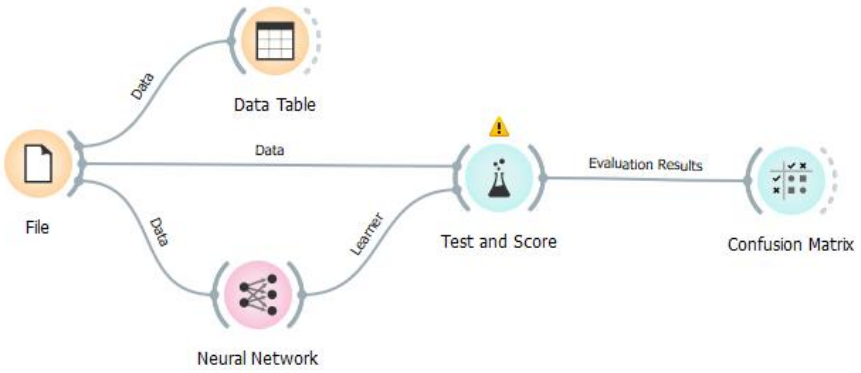

Fig 4.3. Evaluation of the Convolution Neural Network Classification Model

In the picture above there is a system used to evaluate the method applied. The accuracy of the results is evaluated using several widgets, namely test and score and confusion matrix. The accuracy results obtained are as follows.

Table 2.4. Result Of Test and Score

Model	AUC	CA	F1	Precision	Recall
Convolution Neural Network	0.945	0.889	0.894	0.901	0.889

In the table above, the accuracy results of the Convolution Neural Network method are shown, which reached 94%. These results show that the Convolution Neural Network method is very effective in classifying the level of satisfaction of students at the Faculty of Science and Technology, making it an excellent tool for this analysis.

Table 4.5. Result of Confusion Matrix

		Predicted		
		Puas	Tidak Puas	∑
Actual	Puas	38	3	41
	Tidak Puas	2	2	4
	∑	40	5	45

The True Positive (TP) result is 38. True Negative (TN) is 2, False Positive (FP) is 3 and False Negative (FN) is 2. Then the values for accuracy, precision and recall are as follows:

$$Accuracy = \frac{38+2}{38+2+3+2} + 100\% \quad \text{Then the Accuracy value} = 88\%$$

$$Presisi = \frac{38}{38+3} + 100\% \quad \text{Then the Presisi value} = 92\%$$

$$Recall = \frac{38}{38+2} + 100\% \quad \text{Then the Recall value} = 95\%$$

In the Confusion Matrix widget, the accuracy results of the Convolution Neural Network method in classifying the satisfaction level of students at the Faculty of Science and Technology reached 88%. These results indicate that the Convolution Neural Network method is quite effective in determining the level of student and female satisfaction at the faculty.

VI. CONCLUSION AND SUGGESTIONS

1. *CONCLUSION*

Based on the research results, the Convolution Neural Network method has proven to be quite effective in classifying the level of satisfaction of students at the Faculty of Science and Technology, with an accuracy of 88%. The majority of students and students were satisfied with the existing services and facilities, with 41 out of 45 respondents indicating satisfaction. These findings provide a positive picture of faculty performance, but also highlight that there are several aspects that still need to be improved to ensure more equitable satisfaction among students.

2. *SUGGESTIONS*

Based on the results of this research, it is recommended that the Faculty of Science and Technology continue to improve the quality of services and facilities to ensure more even student and female satisfaction. Faculties can carry out routine evaluations of areas that are still unsatisfactory, such as academic aspects, administration and other supporting facilities. In addition, involving students in providing regular feedback can help faculty be more responsive to their needs and expectations, thereby maintaining and increasing satisfaction levels in the future.

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