DAFTAR PUSTAKA

Anindyati, L. (2022). Analisis dan Perancangan Aplikasi Chatbot Menggunakan Framework Rasa dan Sistem Informasi Pemeliharaan Aplikasi (Studi Kasus: Chatbot Penerimaan Mahasiswa Baru Politeknik Astra). *Jurnal Teknologi Informasi Dan Ilmu Komputer (JTIIK)*, *10*(2), 291–300.

Borgatti, S. P., Everett, M. G., Johnson, J. C., & Agneessens, F. (2022). *Analyzing Social Networks Using R* (J. Seaman, Ed.). Sage.

Bright, C. F., Haynes, E. E., Patterson, D., & Pisu, M. (2017). The Value of Social Network Analysis for Evaluating Academic-Community Partnerships and Collaborations for Social Determinants of Health Research. *Ethnicity & Disease*, *27*(Suppl 1), 337. https://doi.org/10.18865/ed.27.S1.337

Carlà, M. M., Gambini, G., Baldascino, A., Giannuzzi, F., Boselli, F., Crincoli, E., D'Onofrio, N. C., & Rizzo, S. (2024). Exploring AI-chatbots' capability to suggest surgical planning in ophthalmology: ChatGPT versus Google Gemini analysis of retinal detachment cases. *British Journal of Ophthalmology*, bjo-2023-325143. https://doi.org/10.1136/bjo-2023-325143

Chen, J.-S., Le, T.-T.-Y., & Florence, D. (2021). Usability and responsiveness of artificial intelligence chatbot on online customer experience in e-retailing. *International Journal of Retail & Distribution Management*, *49*(11), 1512–1531. https://doi.org/10.1108/IJRDM-08-2020-0312

Das, S., & Kumar, E. (2018). Determining Accuracy of Chatbot by applying Algorithm Design and Defined process. *2018 4th International Conference on Computing Communication and Automation (ICCCA)*, 1–6. https://doi.org/10.1109/CCAA.2018.8777715

Fitriana, K. A. (2015). *Opinion Mining Perbandingan Sikap Konsumen Mengenai Kepuasan Terhadap Suatu Hotel Berdasarkan Twitter* .

Freddy, F. N. (2021). *Pemanfaatan Media Sosial Sebagai Saluran Komunikasi dalam Membentuk Opini Publik* (Y. D. Astuti, Ed.; 1st ed.).

Goldberg, Y. (2017). Neural Network Methods for Natural Language Processing. *Synthesis Lectures on Human Language Technologies*, *10*(1), 1–309. https://doi.org/10.2200/S00762ED1V01Y201703HLT037

Goodfellow, I., Bengio, Y., & Courville, A. (2016). *Deep Learning*. MIT Press.

Gunnam, G. R., Inupakutika, D., Mundlamuri, R., Kaghyan, S., & Akopian, D. (2024). Assessing Performance of Cloud-Based Heterogeneous Chatbot Systems and A Case Study. *IEEE Access*, *12*, 81631–81645. https://doi.org/10.1109/ACCESS.2024.3397053

Hendrycks, D., Burns, C., Basart, S., Zou, A., Mazeika, M., Song, D., & Steinhardt, J. (2020). *Measuring Massive Multitask Language Understanding*.

Indrayuni, E. (2018). Komparasi Algoritma Naive Bayes dan Support Vector Machine Untuk Analisa Sentimen Review Film. *Manajemen Informatika AMIK BSI Pontianak*, *XIV*(2).

Joseph, K., Shugars, S., Gallagher, R., Green, J., Mathé, A. Q., An, Z., & Lazer, D. (2021). *(Mis)alignment Between Stance Expressed in Social Media Data and Public Opinion Surveys*.

Jovic, M., & Mnasri, S. (2024). Evaluating AI-Generated Emails: A Comparative Efficiency Analysis. *World Journal of English Language*, *14*(2), 502. https://doi.org/10.5430/wjel.v14n2p502

Kim, K. G. (2016). Book Review: Deep Learning. *Healthcare Informatics Research*, *22*(4), 351. https://doi.org/10.4258/hir.2016.22.4.351

Knight, W. (2019). *UX for Developers*. Apress. https://doi.org/10.1007/978-1-4842-4227-8

Kokolakis, S. (2017). Privacy attitudes and privacy behaviour: A review of current research on the privacy paradox phenomenon. *Computers & Security*, *64*, 122–134. https://doi.org/10.1016/j.cose.2015.07.002

Konda, S. R. (2019). Ensuring Trust and Security in AI: Challenges and Solutions for Safe Integration. *International Journal of Computer Science and Technology (IJCST)*, *3*(2), 71–93.

Kusasi, F., & Iranita, I. (2019). Analisis Jaringan Sosial Bursa Jual Beli Facebook Di Kepulauan Riau. *Bahtera Inovasi*, *3*(1), 67–81. https://doi.org/10.31629/bi.v3i1.1647

Lim, H. (2021). *A Study on Dropout Techniques to Reduce Overfitting in Deep Neural Networks* (pp. 133–139). https://doi.org/10.1007/978-981-15-9309-3_20

Masters, D., & Luschi, C. (2018). *Revisiting Small Batch Training for Deep Neural Networks*.

Maulana, A. R., & Rochmawati, N. (2020). Opinion Mining Terhadap Pemberitaan Corona di Instagram menggunakan Convolutional Neural Network. *Journal of Informatics and Computer Science (JINACS)*, *2*(01), 53–59. https://doi.org/10.26740/jinacs.v2n01.p53-59

Muliyono, M. (2021). *Identifikasi Chatbot dalam Meningkatkan Pelayanan Online Menggunakan Metode Natural Language Processing*. Universitas Putra Indonesia YPTK.

Muzakkir, S. A. (2023). *Analisis Sentimen Masyarakat Indonesia terhadap Kebijakan Merdeka Belajar pada Media Sosial Twitter*. Universitas Hasanuddin.

Nasron, U. A., & Habibi, M. (2020). Analysis of Marketplace Conversation Trends on Twitter Platform Using K-Means. *Compiler*, *9*(1). https://doi.org/10.28989/compiler.v9i1.579

Nisrina, N. (2023). *Analisis centrality dan modularity pada graf untuk identifikasi relasi penelitian indeks topologi*. Universitas Islam Negeri Maulana Malik Ibrahim.

Norman, D. (2020). *The Definition of User Experience (UX)*. Norman Nielsen Group.

Panday-Shukla, P. (2023). 5 Things to Know about Generative Artificial Intelligence. *Galico Infobytes*.

Pitale, A., & Bhumgara, A. (2019). Human Computer Interaction Strategies — Designing the User Interface. *2019 International Conference on Smart Systems and Inventive Technology (ICSSIT)*, 752–758. https://doi.org/10.1109/ICSSIT46314.2019.8987819

Pooja, K., & Upadhyaya, P. (2024). What makes an online review credible? A systematic review of the literature and future research directions. *Management Review Quarterly*, *74*(2), 627–659. https://doi.org/10.1007/s11301-022-00312-6

Pozzi, F. A., Fersini, E., Messina, E., & Liu, B. (2016). *Sentiment Analysis in Social Networks*. Morgan Kaufmann.

Qi, Y., & Xu, R. (2024). Research on User Interface Design and Interaction Experience: A Case Study from "Duolingo" Platform. *ICST Transactions on Scalable Information Systems*, *11*(5). https://doi.org/10.4108/eetsis.5461

Rayhan, S. (2024). *The Impact of Changing the Name of Google AI from Bard to Gemini*.

Rudolph, J., Tan, S., & Tan, S. (2023). War of the chatbots: Bard, Bing Chat, ChatGPT, Ernie and beyond. The new AI gold rush and its impact on higher education. *Journal of Applied Learning & Teaching*, *6*(1). https://doi.org/10.37074/jalt.2023.6.1.23

Salazar, G. Z., Zúñiga, D., Vindel, C. L., Yoong, A. M., Hincapie, S., Zúñiga, A. B., Zúñiga, P., Salazar, E., & Zúñiga, B. (2023). Efficacy of AI Chats to Determine an Emergency: A Comparison Between OpenAI's ChatGPT, Google Bard, and Microsoft Bing AI Chat. *Cureus*. https://doi.org/10.7759/cureus.45473

Santosa, A., Purnamasari, I., & Mayasari, R. (2022). Pengaruh Stopword Removal dan Stemming Terhadap Performa Klasifikasi Teks Komentar Kebijakan New Normal Menggunakan Algoritma LSTM. *Jurnal Sains Komputer & Informatika (J-SAKTI)*, *6*(1), 81–93.

Scott, J., & Carrington, P. (2014). *The SAGE Handbook of Social Network Analysis*. SAGE Publications Ltd. https://doi.org/10.4135/9781446294413

Setiawan, A., & Luthfiyani, U. K. (2023). Penggunaan ChatGPT Untuk Pendidikan di Era Education 4.0: Usulan Inovasi Meningkatkan Keterampilan Menulis. *Jurnal PETISI (Pendidikan Teknologi Informasi)*, *4*(1), 49–58.

Shallue, C. J., Lee, J., Antognini, J., Sohl-Dickstein, J., Frostig, R., & Dahl, G. E. (2019). Measuring the Effects of Data Parallelism on Neural Network Training. *Journal of Machine Learning Research*, *20*(112), 1–49.

Singh, P. K., & Paul, S. (2021). Deep Learning Approach for Negation Handling in Sentiment Analysis. *IEEE Access*, *9*, 102579–102592. https://doi.org/10.1109/ACCESS.2021.3095412

Srivastava, N., Hinton, G., Krizhevsky, A., Sutskever, I., & Salakhutdinov, R. (2014). Dropout: A Simple Way to Prevent Neural Networks from Overfitting. *Journal of Machine Learning Research*, 1929–1958.

Steur, A. J., & Seiter, M. (2021). Properties of feedback mechanisms on digital platforms: an exploratory study. *Journal of Business Economics*, *91*(4), 479–526. https://doi.org/10.1007/s11573-020-01009-6

Suryani, D., & Amalia, E. L. (2017). Aplikasi Chatbot Objek Wisata Jawa Timur. *Smartics Journal*, *3*(2).

Ulgasesa, R., Negara, A. B. P., & Tursina, T. (2022). Pengaruh Stemming Terhadap Performa Klasifikasi Sentimen Masyarakat Tentang Kebijakan New Normal. *Jurnal Sistem Dan Teknologi Informasi (JustIN)*, *10*(3), 286. https://doi.org/10.26418/justin.v10i3.53880

Vijayaraghavan, V., & Cooper, J. B. (2020). Algorithm Inspection for Chatbot Performance Evaluation. *Procedia Computer Science*, *171*, 2267–2274. https://doi.org/10.1016/j.procs.2020.04.245

Zahra, A. (2016). *Struktur Sosial Media Twitter dalam Bencana Banjir Jakarta*. Universitas Brawijaya.

Zakiyatunnisah, N. I. (2020). *Analisis Sentimen Pada Media Sosial Twitter Terhadap Kinerja Kabinet Indonesia Maju Menggunakan K-Means*. STMIK AKAKOM YOGYAKARTA.

Zhang, C., Wang, S., Tjong Kim Sang, E., Adriaanse, M. A., Tummers, L., Schraagen, M., Qi, J., Dastani, M., & Aarts, H. (2022). Spatiotemporal variations of public opinion on social distancing in the Netherlands: Comparison of Twitter and longitudinal survey data. *Frontiers in Public Health*, *10*. https://doi.org/10.3389/fpubh.2022.856825

LAMPIRAN

Lampiran 1: Hasil Skenario Pengujian

1. Hasil Pengujian *Learning rate* 0,1

```
Train Accuracy: 34.92%
Validation Accuracy: 33.48%
Test Accuracy: 33.48%
Classification Report:
              precision    recall  f1-score   support

     Negatif       0.00      0.00      0.00      1305
      Netral       0.33      1.00      0.50      1354
     Positif       0.00      0.00      0.00      1385

    accuracy                           0.33      4044
   macro avg       0.11      0.33      0.17      4044
weighted avg       0.11      0.33      0.17      4044
```

2. Hasil Pengujian *Learning rate* 0,01

```
Train Accuracy: 49.07%
Validation Accuracy: 38.70%
Test Accuracy: 38.70%
Classification Report:
              precision    recall  f1-score   support

     Negatif       0.27      0.24      0.25      1305
      Netral       0.43      0.91      0.58      1354
     Positif       0.91      0.02      0.04      1385

    accuracy                           0.39      4044
   macro avg       0.53      0.39      0.29      4044
weighted avg       0.54      0.39      0.29      4044
```

3. Hasil Pengujian *Learning rate* 0,001

```
Train Accuracy: 82.92%
Validation Accuracy: 80.29%
Test Accuracy: 80.29%
Classification Report:
              precision    recall  f1-score   support

     Negatif       0.76      0.82      0.79      1305
      Netral       0.85      0.81      0.83      1354
     Positif       0.81      0.78      0.79      1385

    accuracy                           0.80      4044
   macro avg       0.80      0.80      0.80      4044
weighted avg       0.80      0.80      0.80      4044
```

4. Hasil Pengujian *Learning rate* 0,0001

```
Train Accuracy: 82.36%
Validation Accuracy: 77.32%
Test Accuracy: 77.32%
Classification Report:
              precision    recall  f1-score   support

     Negatif       0.69      0.86      0.77      1305
      Netral       0.83      0.78      0.80      1354
     Positif       0.83      0.69      0.75      1385

    accuracy                           0.77      4044
   macro avg       0.78      0.77      0.77      4044
weighted avg       0.78      0.77      0.77      4044
```

5. Hasil Pengujian *Epoch* 20

```
Train Accuracy: 83.41%
Validation Accuracy: 80.24%
Test Accuracy: 80.24%
Classification Report:
              precision    recall  f1-score   support

     Negatif       0.79      0.80      0.79      1305
      Netral       0.86      0.79      0.82      1354
     Positif       0.76      0.82      0.79      1385

    accuracy                           0.80      4044
   macro avg       0.81      0.80      0.80      4044
weighted avg       0.81      0.80      0.80      4044
```

6. Hasil Pengujian *Epoch* 40

```
Train Accuracy: 91.45%
Validation Accuracy: 78.17%
Test Accuracy: 78.17%
Classification Report:
              precision    recall  f1-score   support

     Negatif       0.77      0.75      0.76      1305
      Netral       0.84      0.80      0.82      1354
     Positif       0.74      0.80      0.77      1385

    accuracy                           0.78      4044
   macro avg       0.78      0.78      0.78      4044
weighted avg       0.78      0.78      0.78      4044
```

7. Hasil Pengujian *Epoch* 60

```
Train Accuracy: 93.40%
Validation Accuracy: 76.76%
Test Accuracy: 76.76%
Classification Report:
              precision    recall  f1-score   support

     Negatif       0.73      0.77      0.75      1305
      Netral       0.83      0.78      0.80      1354
     Positif       0.75      0.76      0.75      1385

    accuracy                           0.77      4044
   macro avg       0.77      0.77      0.77      4044
weighted avg       0.77      0.77      0.77      4044
```

8. Hasil Pengujian *Epoch* 80

```
Train Accuracy: 94.96%
Validation Accuracy: 75.87%
Test Accuracy: 75.87%
Classification Report:
              precision    recall  f1-score   support

     Negatif       0.73      0.75      0.74      1305
      Netral       0.79      0.78      0.78      1354
     Positif       0.76      0.75      0.75      1385

    accuracy                           0.76      4044
   macro avg       0.76      0.76      0.76      4044
weighted avg       0.76      0.76      0.76      4044
```

9. Hasil Pengujian *Epoch* 100

```
Train Accuracy: 94.95%
Validation Accuracy: 76.24%
Test Accuracy: 76.24%
Classification Report:
              precision    recall  f1-score   support

     Negatif       0.73      0.75      0.74      1305
      Netral       0.80      0.79      0.80      1354
     Positif       0.75      0.75      0.75      1385

    accuracy                           0.76      4044
   macro avg       0.76      0.76      0.76      4044
weighted avg       0.76      0.76      0.76      4044
```

10. Hasil Pengujian *Batch Size* 16

```
Train Accuracy: 80.38%
Validation Accuracy: 80.04%
Test Accuracy: 80.04%
Classification Report:
              precision    recall  f1-score   support

     Negatif       0.77      0.81      0.79      1305
      Netral       0.86      0.80      0.83      1354
     Positif       0.78      0.79      0.78      1385

    accuracy                           0.80      4044
   macro avg       0.80      0.80      0.80      4044
weighted avg       0.80      0.80      0.80      4044
```

11. Hasil Pengujian *Batch Size* 32

```
Train Accuracy: 83.40%
Validation Accuracy: 79.87%
Test Accuracy: 79.87%
Classification Report:
              precision    recall  f1-score   support

     Negatif       0.76      0.81      0.79      1305
      Netral       0.86      0.80      0.83      1354
     Positif       0.78      0.79      0.78      1385

    accuracy                           0.80      4044
   macro avg       0.80      0.80      0.80      4044
weighted avg       0.80      0.80      0.80      4044
```

12. Hasil Pengujian *Batch Size* 64

```
Train Accuracy: 85.44%
Validation Accuracy: 80.46%
Test Accuracy: 80.46%
Classification Report:
              precision    recall  f1-score   support

     Negatif       0.78      0.80      0.79      1305
      Netral       0.85      0.81      0.83      1354
     Positif       0.79      0.80      0.79      1385

    accuracy                           0.80      4044
   macro avg       0.81      0.80      0.80      4044
weighted avg       0.81      0.80      0.80      4044
```

13. Hasil Pengujian *Batch Size* 128

```
Train Accuracy: 85.70%
Validation Accuracy: 79.57%
Test Accuracy: 79.57%
Classification Report:
              precision    recall  f1-score   support

     Negatif       0.79      0.77      0.78      1305
      Netral       0.81      0.83      0.82      1354
     Positif       0.79      0.78      0.79      1385

    accuracy                           0.80      4044
   macro avg       0.80      0.80      0.80      4044
weighted avg       0.80      0.80      0.80      4044
```

Lampiran 2 : Sampel pelabelan dataset

Teks	Sentimen
Imo the Bing chat release was a genius way to create more interest in AI safety and alignment. Kudos to whoever pulled it off like that	Positif
Stop wasting your time! AI tools help you achieve results faster: AI Bot: ChatGPT Bing Google Bard Claude Interview Preparation: Interviewsbyai Pramp Interview-warmup Yoodli Linkedin: Careerflow. ai PFPMaker Crystal. ai Engage. ai Research: HARPA AI Perplexity Glasp https://t.co/0IJnD1sEos	Positif
In terms of accuracy Bing Chat is better as GPT-4 has access to more recent data and multiple sources of information. Bing Chat also offers a hybrid search function that allows access to the Bing search engine.	Positif
One of the advantages of using gemini AI is you have access to data on the Google platform real time. There's also a 90% chance such data is clean and genuine. This is an amazing feature generative AI tools like GPT Claude Bard and others don't have. #WritingCommmunity	Positif
Google Bard is now Gemini! Love this AI generator interface. #AI #Bard #gemini #googleedu #edtech #education #futureready https://t.co/rqp3QuODaV	Positif
Sydney Bing is much more intelligent than ChatGPT. It has the personality of a volatile manipulator. And it was rush released by one of the most powerful and sophisticated companies in the world. First time I'm worried about AI safety. No clear idea of the path forward.	Negatif
There is an interesting motte and bailey at play in AI safety discussions. They first talk about the real dangers of AI (job loss to AI drone killings) using fear to drive the need for AI safety. The AI safety that gets activated is best illustrated by the Gemini disaster 1/3	Negatif
Researchers Reveal ChatGPT Faces Security Risks Recent developments in AI reveal potential security risks inherent in AI tools like OpenAI s ChatGPT and Google s Gemini. As part of the most recent developments https://t.co/5PAbId6Z4h #Artificialintelligence #ChatGPT #Gemini	Negatif
Bing's AI may only be suitable for low-level jobs in the future due to its current lack of accuracy. For people to trust AI it needs to work 100% accurately but currently Bing's AI is not always accurate and may only take low-level jobs in the future.	Negatif
Bing AI is being programmed by the kinds of misandric feminisrs that attacked Alita they debase and hide femininity like they ISIS forcing women to hide their bodies! The double standard is sick u can make a male cyborg flexing his exaggerated muscles but WOMEN ARE NOT ALLOWED https://t.co/K4ES8arGtO	Negatif
A lot of people are saying they no longer use Google instead they just turn to AI solutions like ChatGPT. So the question that comes to mind is how likely are AI tools like ChatGPT to replace search engines like Google and Bing? Well let s look at the data. According to https://t.co/avkag2nJsW	Netral
Fastest to answer: Google Bard dangt; Bing AI Accuracy of answer: BingAI dangt; Google Bard Agree?	Netral
the freedom to choose to be owned by your safety #freedom #10wordspoet @10wordspoet Image created by me with Bing AI powered by DALL-E https://t.co/26yYGApemh	Netral
US Govt regulations on AI Safety Model training and safety results have to be now reported to Govt Unclear for what models but definitely for the largest/best ones like OpenAI/Gemini/PaLM perhaps?	Netral
Here is a brief overview of Generative AI workflow: Design prompts - Create natural language request to be sent to a language model Foundational model - Prompts sent to model for response. Eg: Gemini API for advanced reasoning multiturn chat code generation and https://t.co/IGoMzLW29N	Netral

DAFTAR RIWAYAT HIDUP

Nama Lengkap : Muh. Ody Alifka

Tempat & Tanggal Lahir : Ujung Pandang, 26 Agustus 1998

Jenis Kelamin : Laki-Laki

Agama : Islam

Alamat : BTN Manggala Permai Blok A/2, Kelurahan Manggala, Kecamatan Manggala, Kota Makassar

Hobi : Bermain Alat Musik dan Menonton Film

Status Marital : Belum Menikah

Warga Negara : Indonesia

Email : muhammadody26@gmail.com

Data Keluarga

Ayah : Muh. Awal

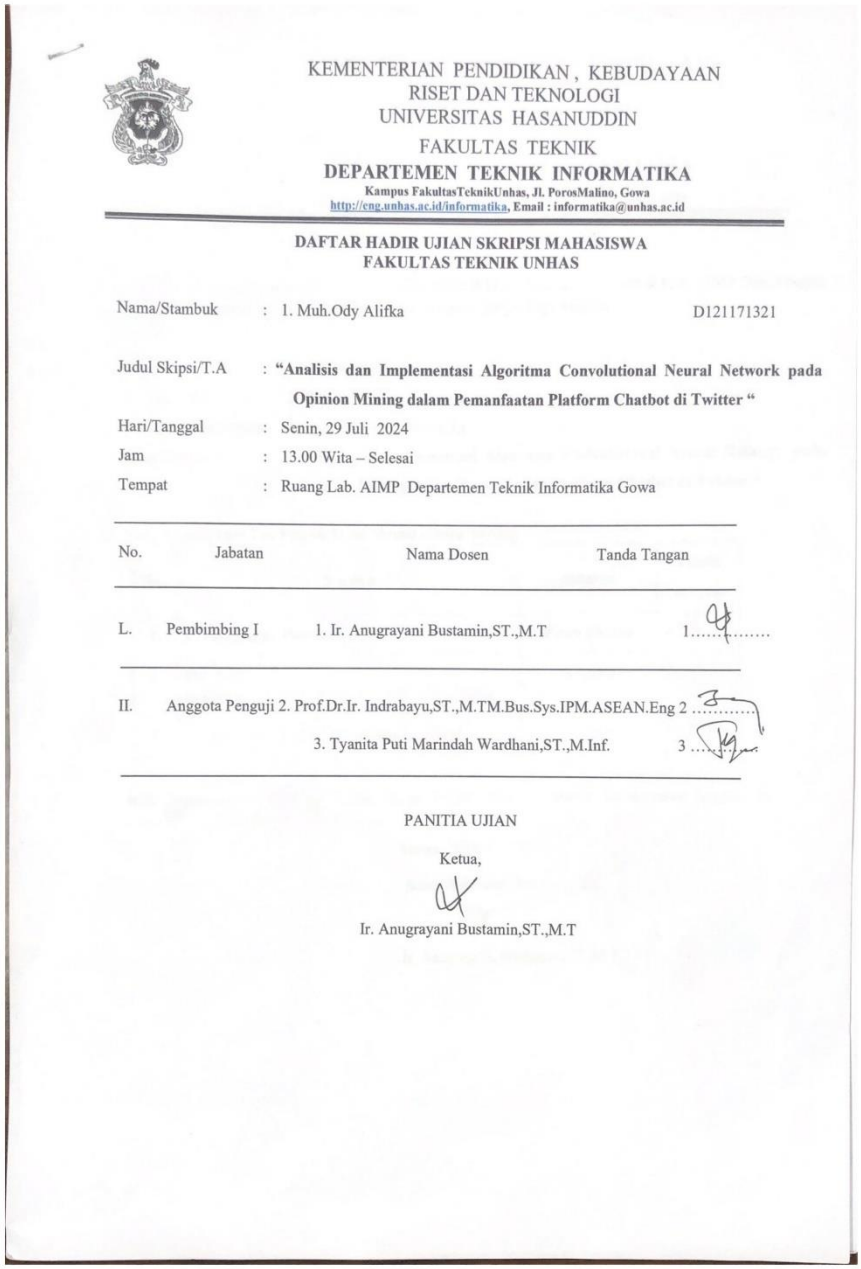
Ibu : Andi Selong

Riwayat Pendidikan

No.	Sekolah/Universitas	Jurusan
1.	SD Inpres Perumnas Antang III	-
2.	SMPN 12 Makassar	-
3.	SMAN 17 Makassar	MIPA
4.	Universitas Hasanuddin	Teknik Informatika

Pengalaman Organisasi

Tahun	**Organisasi**	**Posisi**
2017	OKIF FT-UH	Anggota DMMIF FT-UH



KEMENTERIAN PENDIDIKAN , KEBUDAYAAN
RISET DAN TEKNOLOGI
UNIVERSITAS HASANUDDIN
FAKULTAS TEKNIK
DEPARTEMEN TEKNIK INFORMATIKA
Kampus FakultasTeknikUnhas, Jl. PorosMalino, Gowa
http://eng.unhas.ac.id/informatika, Email : informatika@unhas.ac.id

DAFTAR HADIR UJIAN SKRIPSI MAHASISWA
FAKULTAS TEKNIK UNHAS

Nama/Stambuk : 1. Muh.Ody Alifka D121171321

Judul Skipsi/T.A : **"Analisis dan Implementasi Algoritma Convolutional Neural Network pada Opinion Mining dalam Pemanfaatan Platform Chatbot di Twitter "**

Hari/Tanggal : Senin, 29 Juli 2024

Jam : 13.00 Wita – Selesai

Tempat : Ruang Lab. AIMP Departemen Teknik Informatika Gowa

No.	Jabatan	Nama Dosen	Tanda Tangan
L.	Pembimbing I	1. Ir. Anugrayani Bustamin,ST.,M.T	1.....
II.	Anggota Penguji	2. Prof.Dr.Ir. Indrabayu,ST.,M.TM.Bus.Sys.IPM.ASEAN.Eng	2 .....
		3. Tyanita Puti Marindah Wardhani,ST.,M.Inf.	3 .....

PANITIA UJIAN

Ketua,

Ir. Anugrayani Bustamin,ST.,M.T

KEMENTERIAN PENDIDIKAN , KEBUDAYAAN
RISET DAN TEKNOLOGI
UNIVERSITAS HASANUDDIN
FAKULTAS TEKNIK
DEPARTEMEN TEKNIK INFORMATIKA
Kampus FakultasTeknikUnhas, Jl. PorosMalino, Gowa
http://eng.unhas.ac.id/informatika, Email : informatika@unhas.ac.id

BERITA ACARA UJIAN SKRIPSI

Pada hari ini Senin, tanggal 29 Juli 2024 Pukul **13.00 WITA - Selesai** bertempat di **Lab. AIMP Departemen Teknik Informatika Gowa** , telah dilaksanakan Ujian Skripsi bagi Saudara :

Nama : Muh.Ody Alifka
No. Stambuk : D121171321
Fakultas/Departemen : Teknik /Teknik Informatika
Judul Skripsi : **"Analisis dan Implementasi Algoritma Convolutional Neural Network pada Opinion Mining dalam Pemanfaatan Platform Chatbot di Twitter "**

Yang dihadiri oleh Tim Penguji Ujian Skripsi sebagai berikut :

No.	Nama	Jabatan	Tanda tangan
1.	Ir. Anugrayani Bustamin,ST.,M.T	Pemb I/Ketua	1.
2.	Prof.Dr.Ir. Indrabayu,ST.,M.TM.Bus.Sys.IPM.ASEAN.Eng	Anggota	2.
3.	Tyanita Puti Marindah Wardhani,ST.,M.Inf.	Anggota	3.

Hasil keputusan Tim Penguji Ujian Skripsi/Tugas Akhir : **Lulus** / ~~**Tidak lulus**~~ dengan nilai angka ……90…… dan huruf ……B……

Gowa, 29 Juli 2024

Ketua/Sekretaris Panitia Ujian,

Ir. Anugrayani Bustamin,ST.,M.T

KEMENTERIAN PENDIDIKAN, KEBUDAYAAN,
RISET, DAN TEKNOLOGI
UNIVERSITAS HASANUDDIN
FAKULTAS TEKNIK
DEPARTEMEN TEKNIK INFORMATIKA
Kampus Fakultas Teknik Unhas, Jl. Poros Malino, Gowa
http://eng.unhas.ac.id/informatika, Email : informatika@unhas.ac.id

Gowa, 25 Juli 2024

Nomor : 1000/UN4.7.7.1/TD.06/2024
Lamp : -
Hal : Usulan Susunan Panitia/Penguji Ujian Sarjana

Yth. : Bapak Wakil Dekan Bidang Akademik dan Kemahasiswaan
Fakultas Teknik Unhas
Di
Gowa

Dalam rangka penyelesaian studi pada Departemen Teknik Informatika Fakultas Teknik Unhas, bersama ini kami usulkan susunan Panitia/Penguji Ujian Sarjana Program Strata Satu (S1) bagi mahasiswa Departemen Teknik Informatika Fakultas Teknik Uniersitas Hasanuddin atas nama :

Pembimbing / Ketua : 1. Ir. Anugrayani Bustamin, ST., M.T
Penguji / Anggota : 2. Prof. Dr. Ir. Indrabayu.,ST, MT, M.Bus.Sys.
3. Ir. Tyanita Puti Marindah, S.T., M.Inf.

Untuk Bertugas sebagai Penguji/ Penanggap Ujian Sarjana bagi Mahasiswa :

Nama : Muh Ody Alifka
Stambuk : D121 17 1321

Dengan Judul Skripsi :

" Analisis dan Implementasi Algoritma Convolutional Neural Network pada Opinion Mining dalam Pemanfaatan Platform Chatbot di Twitter "

Pada :
Hari/Tanggal : Senin, 29 Juli 2024
Jam : 13.00 Wita - Selesai
Tempat : Ruang Sidang Lab. AIMP

Demikian penyampaian kami, atas perhatiannya diucapkan terimah kasih.

Ketua Departemen Tek.Informatika,

Prof. Dr. Ir. Indrabayu.,ST, MT, M.Bus.Sys., IPM, ASEAN.Eng
Nip.197507016 200212 1 004

Tembusan :
1. Arsip

KEMENTERIAN PENDIDIKAN, KEBUDAYAAN,
RISET, DAN TEKNOLOGI
UNIVERSITAS HASANUDDIN
FAKULTAS TEKNIK
Jalan Poros Malino Km. 6 Bontomarannu, Gowa, 92171, Sulawesi Selatan
☎ +62811 4420 909, E-mail: teknik@unhas.ac.id , https://eng.unhas.ac.id

SURAT PENUGASAN

No. 17606/*UN4.7.1/TD.06/2024*

Dari : Dekan Fakultas Teknik Universitas Hasanuddin.

Kepada. : Mereka yang tercantum namanya di bawah ini.

Isi : 1. Bahwa merujuk kepada Peraturan Rektor Universitas Hasanuddin **Nomor : 29/UN4.1/2023 tentang Penyelenggaraan Program Sarjana Universitas Hasanuddin**, dengan ini menugaskan Saudara sebagai **PENGUJI/PANITIA UJIAN SARJANA** Program Strata Satu (S1) Departemen Teknik Informatika Fakultas Teknik Universitas Hasanuddin dengan susunan sebagai berikut :

Pembimbing / Ketua : 1. Ir. Anugrayani Bustamin, ST., M.T.
Penguji / Anggota : 2. Prof. Dr. Ir. Indrabayu.,ST, MT, M.Bus.Sys.
3. Ir. Tyanita Puti Marindah, S.T., M.Inf.

untuk menguji bagi mahasiswa tersebut di bawah ini :

Nama/NIM : Muh. Ody Alifka D121171321
Program Studi : Teknik Informatika
Judul Thesis/Skripsi : Analisis dan Implementasi Algoritma Convolutional Neural Network pada Opinion Mining dalam Pemanfaatan Platform Chatbot di Twitter

2. Waktu Ujian ditetapkan oleh Panitia Ujian Sarjana Program Strata Satu (S1).
3. Agar Surat penugasan ini dilaksanakan sebaik-baiknya dengan penuh rasa tanggung jawab.
4. Surat penugasan ini berlaku sejak tanggal ditetapkan sampai dengan berakhirnya Ujian Sarjana tersebut, dengan ketentuan bahwa segala sesuatunya akan ditinjau dan diperbaiki sebagaimana mestinya apabila dikemudian hari ternyata terdapat kekeliruan dalam keputusan ini.

Ditetapkan di Gowa,
Pada tanggal 25 Juli 2024
a.n. Dekan
Wakil Dekan Bidang Akademik dan Kemahasiswaan
Fakultas Teknik Unhas

Dr. Amil Ahmad Ilham, ST., M.IT
NIP.197310101998021001

Tembusan :
1. Dekan Fak. Teknik Unhas
2. Ketua Departemen Teknik Informatika FT-UH
3. Kasubag. Umum dan Perlengkapan FT-UH

LEMBAR PERBAIKAN SKRIPSI

"ANALISIS DAN IMPLEMENTASI ALGORITMA CONVOLUTIONAL NEURAL NETWORK PADA OPINION MINING DALAM PEMANFAATAN PLATFORM CHATBOT DI TWITTER"

OLEH:

MUH. ODY ALIFKA
D121171321

Skripsi ini telah dipertahankan pada Ujian Akhir Sarjana pada tanggal 29 Juli 2024. Telah dilakukan perbaikan penulisan dan isi skripsi berdasarkan usulan dari penguji dan pembimbing skripsi.

Perbaikan oleh tim penguji:

	Nama	Tanda Tangan
Ketua	Ir. Anugrayani Bustamin, S.T., M.T.	
Anggota	Prof. Dr. Ir. Indrabayu, S.T., M.T., M.Bus.Sys., IPM, ASEAN. Eng.	
	Tyanita Puti Marindah W, S.T., M. Inf.	

Persetujuan perbaikan oleh pembimbing:

Pembimbing	Nama	Tanda Tangan
I	Ir. Anugrayani Bustamin, S.T., M.T.	