Resume of
Abdul Aziz
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Career Objectives:	To be a successful data science researcher in an academic institution where I may be able to best use my technical expertise to pursue extensive research using cutting-edge technologies.
Education:	B.Sc. (Hons.) in Computer Science and Engineering, 2018 - present University of Chittagong, Chittagong, Bangladesh. Thesis: Multimodal Desire Understanding on Social Media Data Advisor: Professor Nihad Karim Chowdhury.
Research Interests:	Multimodal NLP, Multilingual and Low-resource NLP, Social Computing, Lexical Semantics, Information Extraction, Computational Linguistics, Natural Language Processing and Data Science.
Research Publications:	(* implies equal contributions) **International Journals:**

1. **Abdul Aziz**, Nihad Karim Chowdhury, Muhammad Ashad Kabir, Abu Nowshed Chy, and Md. Jawad Siddique, *MMTF-DES: A Fusion of Multimodal Transformer Models for Desire, Emotion, and Sentiment Analysis of Social Media Data*, Information Fusion Journal , Vol. -, No. -, pp. -, 2023. (On Review)

2. **Abdul Aziz***, Md. Akram Hossain*, Abu Nowshed Chy, Md Zia Ullah, and Masaki Aono, *Leveraging Contextual Representations with BiLSTM-based Regressor for Lexical Complexity Prediction*, Natural Language Processing Journal , Vol. -, No. -, pp. -, 2023. (On Review)

Conference and Workshop Papers:

1. **Abdul Aziz**, Md. Akram Hossain, Abu Nowshed Chy, and, Md Zia Ullah *Multimodal Complaint Detection Using Sentiment and Emotion-Aided Multitask Contrastive Learning Model*, The 46th European Conference on Information Retrieval (ECIR '24) (Long Paper). (In-Progress)

2. **Abdul Aziz**, Md. Akram Hossain, and Abu Nowshed Chy, *Sentiment and Emotion Analysis Using Transformer-based Multi-task Contrastive Learning Model on Code-mixed Tweets*, The 46th European Conference on Information Retrieval (ECIR '24) (Short Papers). (In-Progress)

3. **Abdul Aziz**, Md. Akram Hossain, and Abu Nowshed Chy, *CSECU-DSG@ Multimodal Hate Speech Event Detection 2023: Transformer-based Multimodal Hierarchical Fusion Model For Multimodal Hate Speech Detection*, Proceedings

of the 6th Workshop on Challenges and Applications of Automated Extraction of Socio-political Events from Text (CASE), CASE@RANLP-2023 (Accepted)

4. Md. Akram Hossain, **Abdul Aziz**, and Abu Nowshed Chy, *CSECU-DSG @ Causal News Corpus 2023: Leveraging RoBERTa and DeBERTa Transformer Model with Contrastive Learning for Causal Event Classification*, Proceedings of the 6th Workshop on Challenges and Applications of Automated Extraction of Socio-political Events from Text (CASE), CASE@RANLP-2023 (Accepted)

5. **Abdul Aziz**, Md. Akram Hossain, and Abu Nowshed Chy, *CSECU-DSG at CheckThat! 2023: Transformer-based Fusion Approach for Multimodal and Multi-genre Check-Worthiness*, CLEF 2023: Conference and Labs of the Evaluation Forum, September 18–21, 2023, Thessaloniki, Greece. (Accepted)

6. **Abdul Aziz***, Md. Akram Hossain*, and Abu Nowshed Chy, *CSECU-DSG at SemEval-2023 Task 4: Fine-tuning DeBERTa Transformer Model with Cross-fold Training and Multi-sample Dropout for Human Values Identification*, Proceedings of the The 17th International Workshop on Semantic Evaluation (SemEval-2023), pages 1988–1994. PDF

7. **Abdul Aziz***, Md. Akram Hossain*, and Abu Nowshed Chy, *CSECU-DSG @ Causal News Corpus 2022: Fusion of RoBERTa Transformers Variants for Causal Event Classification*, Proceedings of the 5th Workshop on Challenges and Applications of Automated Extraction of Socio-political Events from Text (CASE), CASE@EMNLP-2022, pages 138–142. (PDF)

8. **Abdul Aziz***, Md. Akram Hossain*, and Abu Nowshed Chy, *Enhancing the DeBERTa Transformers Model for Classifying Sentences from Biomedical Abstracts*, Proceedings of the The 20th Annual Workshop of the Australasian Language Technology Association (ALTA-2022), pages 156–160. (PDF)

9. **Abdul Aziz***, Md. Akram Hossain*, and Abu Nowshed Chy, *CSECU-DSG at SemEval-2022 Task 3: Investigating the Taxonomic Relationship Between Two Arguments using Fusion of Multilingual Transformer Models*, Proceedings of the 16th International Workshops on Semantic Evaluation (SemEval-2022), Pages 255–259. (PDF)

10. **Abdul Aziz***, Md. Akram Hossain*, and Abu Nowshed Chy, *CSECU-DSG at SemEval-2022 Task 11: Identifying the Multilingual Complex Named Entity in Text Using Stacked Embeddings and Transformer based Approach*, Proceedings of the 16th International Workshops on Semantic Evaluation (SemEval-2022), Pages 255–259. (PDF)

11. **Abdul Aziz***, Md. Akram Hossain*, and Abu Nowshed Chy, *CSECU-DSG at SemEval-2021 Task 1: Fusion of Transformer Models for Lexical Complexity Prediction*, In Proceedings of the 15th International Workshop on Semantic Evaluation (SemEval-2021), pages 627–631. (PDF)

12. **Abdul Aziz***, Md. Akram Hossain*, and Abu Nowshed Chy, *Feature Fusion with Hand-crafted and Transfer Learning Embeddings for Cause-Effect Relation Extraction Feature Fusion with Hand-crafted and Transfer Learning Embeddings for Cause-Effect Relation Extraction*, CEREX@FIRE 2020, Forum for Information Retrieval Evaluation (FIRE 2020), Pages 756 - 764. (PDF)

Research Experience:	• **CSECU-DSG (Research Assistant)** [April 2020 - present] I am a founding member of the CSECU-DSG research group. I worked as a research assistant under the supervision of Dr Abu Nowshed Chy. I have worked on many NLP research areas including multilingual and low-resource NLP, multimodal NLP, lexical semantics, and biomedical NLP etc.

Selected Research Projects:

Mutilingual and Code-mixed Task Understanding [December 2021 - Present]
- Multi-task Code-mixed Sentiment and Emotion Analysis [ECIR '24] (In-progress)
- Multilingual Taxonomic Relationship of Arguments [SemEval '22]
- Multilingual and Code-mixed Complex NER [SemEval '22]

Multimodal NLP for Social Good [January 2022 - Present]
- Multimodal Complaint Detection [ECIR '24] (In-progress)
- Multimodal Human Desire Understanding [Elsevier Information Fusion Journal '23] (On Review)
- Multimodal Hate Speech Detection on Rassia-Ukraine Crisis [CASE@RANLP '23] (Accepted)
- Multimodal and Multigenre Check-Worthiness [CheckThat!@CLEF '23]

Lexical Simplification [December 2020 - Present]
- Multilingual Lexical complexity Prediction [LREC-COLING '24] (In-progress)
- Complex word Identification and Lexical Complexity Prediction [Elsevier NLP Journal '23] (On Review)
- Lexical Complexity Prediction [SemEval '21]

NLP for Social Good [December 2022 - Present]
- Human Value Identification [SemEval '23]

Causal Information Extraction [June 2020 - August 2023]
- Event Causality Identification [CASE@RANLP '23] (Accepted)
- Causal Event Classification [CASE@EMNLP '22]
- Cause-Effect Relation Extraction [CEREX@FIRE '20]

Biomedical Text Classification [June 2022 - November 2022]
- Classifying Sentences from Biomedical Abstracts [ALTA '22]
- Medical Visual Question Answering

• **Undergrad Thesis** [May 2022 - August 2023]
During my undergrad thesis, I studied the multimodal learning paradigm. I put my knowledge to solve multimodal human desire understanding task. Recently, I have learned multitask learning and contrastive learning.

- Multimodal Human Desire Understanding [Elsevier Information Fusion Journal '23] (On Review)

Research Training:	**ACL Year-Round Mentorship** Mentorship network that helps and supports junior researchers in natural language processing (NLP), 2021 - present.

Achievements and Extra Curricular Activities:	• **1st Place (Winning Team) in CheckThat!@CLEF-2023 Subtask 1A Arabic** - CSECU-DSG at CheckThat! 2023: Transformer-based Fusion Approach for Multimodal and Multigenre Check-Worthiness
	• **2nd Place in ALTA-2022 Shared Task** - Enhancing the DeBERTa Transformers Model for Classifying Sentences from Biomedical Abstracts
	• **1st Place (Winning Team) in CASE@EMNLP-2022 Subtask 1** - CSECU-DSG@Causal News Corpus 2022: Fusion of RoBERTa Transformers Variants for Causal Event Classification
	• **4th Place in PreTENS@SemEval-2022 Subtask 1** - CSECU-DSG at SemEval-2022 Task 3: Investigating the Taxonomic Relationship Between Two Arguments using Fusion of Multilingual Transformer Models
	• **1st Place (Winning Team) in CEREX@FIRE2020 Task A** - Feature Fusion with Hand-crafted and Transfer Learning Embeddings for Cause-Effect Relation Extraction

• **Student Volunteer**
  - The 61st Annual Meeting of the Association for Computational Linguistics (ACL'23)
  - Intra-departmental competitive programming contest (2022 and 2023)
  - The 44th International ACM SIGIR Conference (SIGIR-2021)

• **Reviewer**
  - Semantic Evaluation (SemEval 2020-2023).
  - Conference and Labs of the Evaluation Forum (CLEF 2023)
  - IJCNLP-2023 (Sub-reviewer)

IT Skills Set:	**Programming Languages:** Python, C, C++, JAVA, PHP.
	Libraries and Tools : **Pytorch**, TensorFlow, Scikit-learn, Keras, NLTK, Gensim, Simple Transformers, Flair, Jupyter, BeautifulSoup, Pandas.
	IDE Experiences: Colaboratory, PyCharm, Eclipse, Code Blocks, Visual Studio, PHP Editor, Turbo C, Notepad++, LaTeX.
	Operating System Experiences: Ubuntu, Linux Mint, Kali Linux and Windows 7, 10, 11.
Language Skills:	Bengali: Vernacular. English: Proficient in all aspect.