

# REZA NOURALIZADEH GANJI

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## **EDUCATION**

## Master of Artificial Intelligence

2020 - 2023

K. N. T. University of Technology

Tehran, Iran

- Notable Courses: Natural Language Processing, Neural Networks, Recommender Systems, Information Retrieval, Evolutionary Computation
- *Thesis:* Sentiment Analysis of Short and Incomplete Text using Transformers and Attention Mechanism; under supervision of *Dr. Chitra Dadkhah*
- *Thesis Grade:* (waiting for defense)
- *GPA*: (18.32/20 3.88/4)

## Bachelor of Computer (Software) Engineering

2017 - 2020

**Shomal University** 

Amol, Iran

- *Notable Courses:* Machine Learning, Artificial Intelligence, Algorithm Design, Data Structures, Formal Languages and Automata Theory, Engineering Probability and Statistics
- *Thesis:* A machine learning-based model for spam detection on mobile phone short message service (SMS); under supervision of *Dr. Hamidreza Koohi*
- Thesis Grade: (20/20 4/4)
- *GPA*: (17.61/20 3.44/4)

#### RESEARCH INTERESTS

♥ Natural Language Processing

Deep Learning

Machine Learning

Tinformation Retrieval

Sentiment Analysis

The Computational Linguistics

#### **SKILLS**

Programming: Skilled in Python, Familiar with: PHP, HTML, CSS

**Deep Learning**: Transformers, Attention mechanisms, Recurrent Neural Network (RNN), Long Short Term Memory (LSTM), Gated Recurrent Unit (GRU), Auto Encoders

Machine Learning: Clustering, Decision Tree, Support Vector Machine (SVM), Multi-Layer Perceptron (MLP), Ensemble Models, Logistic Regression

AI Packages: Pytorch, Numpy, Pandas, Matplotlib, WandB, PLotly, Scikit-learn

Languages: Persian (Farsi), English

Industry Knowledges: Documentation, Presentation

#### WORK EXPERIENCE

#### **SEO Specialist**

April 2018 – October 2019

Nooshika Corp.

Babol, Iran

- Producing new content for online publications that addresses the needs of a specified demographic.
- Provide developers and content creators with technical advice on how to improve the performance of web pages.
- Keeping up to date with developments requires constant monitoring of the algorithms that are used by search engines.

# Natural Language Processing Specialization

Younes Bensouda Mourri, Łukasz Kaiser

Coursera February 2022

- In this four-course specialization, students learn how to construct applications for NLP activities including question answering and sentiment analysis, and how to create translation, summarization, and chatbot tools.
- Credential ID: LCKQELFDBRYW

# Deep Learning Specialization 🔀

Coursera

Andrew NG, Kian Katanforoosh, Younes Bensouda Mourri

December 2021

- The five courses in this specialization educate students how to design, develop, and optimise CNNs, RNNs, LSTMs, and Transformers utilising Dropout, BatchNorm, Xavier/He initialization, and other approaches.
- Credential ID: K8PGAYP9BUZC

#### **PUBLICATIONS**

## PAMR: Persian Abstract Meaning Representation Corpus

Submitted

Tohidi, N., Dadkhah, C., Ganji, R.N., Sadr, E.G., Elmi, H.

2022

• Tohidi, N., Dadkhah, C., Ganji, R.N., Sadr, E.G., Elmi, H. (2022). PAMR: Persian Abstract Meaning Representation Corpus.

## **Enhanced Hotel Recommender System based on Sentiment Analysis**

Submitted

Ganji, R.N., Dadkhah, C., Tohidi, N.

2022

• Ganji, R.N., Dadkhah, C., Tohidi, N. (2022). Enhanced Hotel Recommender System based on Sentiment Analysis through an Attention Based Deep Learning Model and Data Augmentation.

## Sentiment Analysis of Short and Incomplete Text

Submitted

Ganji, R.N., Dadkhah, C.

2023

 Ganji, R.N., Dadkhah, C. (2023). Sentiment Analysis of Short and Incomplete Text using Transformers and Attention Mechanism.

# SELECTED PROJECTS

# Sentiment analysis on twitter tweets about COVID-19 vaccines

Spring 2021

**</>/>** Python

• A model for doing sentiment analysis on tweets pertaining to COVID-19 vaccinations was formulated by combining a bio-inspired Cuckoo Search (CS) optimisation algorithm with a K-means clustering method.

## Search engine for Persian poems

Fall 2020

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Python

• Using the Whoosh Python package to create a search engine for Persian poems. The resulting search engine would be able to index large quantities of structured texts and return relevant results based on the user's query.

#### Spam detection with machine learning-based model

Winter 2020

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Python

Building a model for determining if a mobile short message is a spam or not was the goal of this research project.
 The constructed model uses the naive Bayes and bag of words algorithms, which both produce accurate and efficient results.

#### **CONFERENCES & PRESENTATIONS**

#### Neural-based approaches for sentiment analysis

February 2022

KNTU University Master's Research Seminar

#### Applications of Monte Carlo sampling in data mining

June 2021

KNTU University Data Mining's Research Seminar

#### Bio-Inspired algorithms for sentiment analysis

May 2021

KNTU University Evolutionary Computation's Research Seminar

#### How do search engines use machine learning methods?

May 2019

Shomal University Artificial Intelligence's Research Seminar