DAVID EMMANUEL MAQUEDA BOJORQUEZ

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EXPERIENCE

Software Developer

IBM

June 2021 - Present Legaria, CDMX

- Development and maintenance of software, ETL processes and generation of technical and business analysis with technological impact on banking entities

Consultant in New Technologies and Information

Management Solutions

November 2020 - May 2021 Santa Fé, CDMX

- Software development and maintenance in a credit risk information model for banking entities.

EDUCATION

Bachelor of Technology

National Autonomous University of Mexico (UNAM)

August 2017 - August 2021 Cuautitlán, State of Mexico

Software Development Technician

College of Sciences and Humanities (CCH)

August 2015 - August 2016 Azcapotzalco, Mexico City

PROJECTS

Cenzontle

Computer Science Laboratory, IIMAS - UNAM

December 2020 - At Present University City, Mexico City

- Cenzontle is proposed as a library for forensic identification of Spanish speakers, it is based on our work 'Triplet loss based embeddings for forensic speaker identification in Spanish', we intend that this library allows the forensic identification of speakers to anyone in the world. In addition to this, we are working in parallel on the creation of a corpus based on Lope Blanch's Linguistic Atlas

Rosa Espino: An Anthology of False Poetry

Collaboration with artists, poets and researchers from UNAM and ITESM

December 2020 - June 2021 Online

- Vicente Riva Palacio, was a 19th century writer who, under his alter ego Rosa Espino left some texts that showed the thinking and feelings of Mexican society at that time, however given their little relevance in the Mexican poetic context we seek to revalue Rosa Espino gathering his texts and poems to generate new unpublished poems using the GTP-2 language model, thus creating an anthology of fake poems by a fake poet.

MY PHILOSOPHY

"We can only see little of the future, but enough to realize that there is much to do"
- Alan Turing

SOFTSKILLS

Work Under Pressure | Adaptability | Teamwork | Responsibility | Creativity | Continuous Training | Ease of Learning

LANGUAGES

(Native) Spanish
(B2) English
(A2) German

PROGRAMMING LANGUAGES AND FRAMEWORKS

Python
C
JAVA
C++
SQL
Tensorflow
PyTorch
Prolog
HTML/CSS/Bootstrap

SOFTWARE

Microsoft Office
Arduino
MATLAB
Android Studio (JAVA)

UTILITIES

Jupyter Notebook
Google Colab
Visual Studio Code
GNU Linux
Git
Anaconda
LaTeX

CERTIFICATIONS

Microsoft Certified: Azure Fundamentals (AZ900)

Generation of Artificial Art with GAN's

Computer Science Laboratory, IIMAS - UNAM

December 2020 - March 2021 University City, Mexico City

- The generative adversarial networks (GAN's) are a relatively new technique which aims to generate new data based on your training data, which are generally images. A utility in trend has been the so-called artificial art, its creators being digital artists, contemporary artists who focus on the generation of new artistic works through this type of technique. What would a new Rembrandt work look like? o What would the result be if we combined the art style of Monet and Frida Kahlo? With an approximate we can answer these questions by feeding the generator of a GAN with works by Rembrandt or Monet and Frida Kahlo and giving output to new images as a result of the initials.

Triplet loss based embeddings for forensic speaker identification in Spanish

Computer Science Laboratory, IIMAS - UNAM

December 2019 - December 2020 University City, Mexico City

- Project related to forensic linguistics that, through deep learning with the use of convolutional neural networks and the Triplet Loss loss function, seeks to achieve the identification of Spanish speakers through voice samples with high reliability, which allows the system to be used in the legal framework (Publication to journal indexed in review, pre print available at: https://arxiv.org/abs/2102.12564)

Improved 'ask' behavior to improve human-robot interaction in the Golem-III service robot

Computer Science Laboratory, IIMAS - UNAM / CIDI UNAM

May 2019 - February 2020 University City, Mexico City

- 'Ask' is a basic behavior of the Golem-III service robot, it allows dialogue between a user and the robot, however, being poorly optimized it was unstable and achieved a bad interaction with the user, in this project it was improved, giving place at levels of interaction where the robot verifies the human presence or was looking for a nearby presence, has a visual voice identifier and uses the most basic senses of body language as much as possible.

Adaptation of the OpenPose framework in Windows 10 and adaptation to Kinect v2.0

Computer Science Laboratory, IIMAS - UNAM

June 2018 - December 2018 University City, Mexico City

- OpenPose is a framework for the identification of people and / or objects, the simplest construction of it is usually done in Linux, however, given the hardware of the Golem-III service robot, it was necessary to do it in Windows 10 creating the necessary software infrastructure to be able to build OpenPose and later be implemented in Kinect v2.0

AFFILIATIONS

Member of the Mexican Society of Computer Science

PUBLICATIONS

Triplet loss-based embeddings for forensic speaker identification in Spanish. Neural Computing and Applications, Special Issue on LatinX in AI Research.. pp. 1-10. 2021.

Maqueda, E. et al.

September 2021 Vancouver, Canada

From recurrent neural networks to language models: the evolution of the NLP in the generation of texts. TIES, Journal of Technology and Innovation in Higher Education, no. 4, 2021.

D. E. Maqueda

October 2021 CDMX

The Golem Team, RoboCup@Home 2020
Proceedings of RoboCup 2020

Pineda, L. y Golem, G.

November 2019 Bordeaux, France

PRESENTATIONS

Workshop - Generation of Artificial Art with GAN's

4th International Meeting on Artificial Intelligence and its Applications

August 2021 Mexico City

Tutorial - Generation of Artificial Art with GAN's

National Computer Meeting - 2021

August 2021 Mich, Mexico

Using Triplet Loss for Forensic Identification of Spanish Speakers

Cycle of Conferences on Artificial Intelligence of the Artificial Intelligence Society of the Faculty of Engineering (SIAFI)

May 2021 CU, Mexico City

Improved 'ask' behavior to improve human-robot interaction in the Golem-III service robot

2nd Student Congress of Artificial Intelligence Applied to Engineering and Technology (CEIAAIT)

November 2019 Cuautitlán, S.of Mexico

ASSISTS AND HIGHLIGHTS

Tenth Lisbon Machine Learning School – LxMLS'2020

Instituto Superior Técnico, Instituto de Telecomunicações and INESC-ID

Julio 2020 Lisbon, Portugal