# Ricardo M. Ghattas

Address

Rmeileh-Lebanon

Email: ricardoghattas112@gmail.com

Tel: 71 969 399

GitHub: https://github.com/RicardoGHa

LinkedIn: https://www.linkedin.com/in/ricardoghattas/

## Experiences

Computer Science Internship
*SITA – Beirut, Lebanon*
*07/2024 – 08/2024*

- Gained hands-on experience developing and implementing machine learning models, focusing on data preprocessing, model training, and performance evaluation.
- Explored various AI techniques and applications, contributing to designing and testing AI algorithms.
- Participated in web application architecture design involving frontend and backend integration, database management, and cloud-based solutions.
- Collaborated on project planning, execution, and monitoring, while developing familiarity with Agile and Scrum project management methodologies.

## Sports Assistant

*American University of Science and Technology – Beirut, Lebanon*
*10/2022 – 6/2023*

- Managed student registrations for sports classes using Microsoft Word, ensuring accurate and efficient record-keeping.
- Organized and coordinated sports competitions, overseeing event logistics and team participation.
- Collaborated with faculty to schedule and plan sports activities for over 100 students per semester.

## Education

**• American University of Science and Technology, Saida**

-10,2021-present studying computer science, current GPA of 3.05

**Projects**

**Attention is all you need Paper Replication**

- Designed and implemented a Transformer-based natural language processing (NLP) model from scratch, following the "Attention Is All You Need" architecture. Developed both the model and an efficient training loop for machine translation tasks.
- Built and optimized a training loop using PyTorch, including custom loss functions, learning rate scheduling, gradient clipping, and monitoring model performance using validation metrics.
- Implemented embeddings and positional encodings for source and target sequences in sequence-to-sequence tasks.
- Integrated cross-attention mechanisms in the decoder to enhance context understanding from encoder outputs.
- Fine-tuned the model using dropout, and batch normalization for better generalization and stability.

Tools: Python, PyTorch, Transformer architecture, Attention Mechanisms, Feed-forward Networks, Layer Normalization, Embedding Layers, Dropout, Gradient Descent, CUDA.

GitHub: https://github.com/RicardoGHa/AttentionIsAllYouNeedPaperReplication

**Heart Disease Prediction Using Logistic Regression**

- Built a logistic regression model to predict the presence of heart disease based on patient data.
- Preprocessed the data by checking for null values and ensuring a balanced distribution of the target variable.
- Split the dataset into training and testing sets and train the model on the training data.
- Achieved an accuracy of 85% on the training data and 83% on the test data.
- Developed a predictive system to determine the likelihood of heart disease based on patient input features.
- Tools: Python, Pandas, Scikit-learn

GitHub: https://github.com/RicardoGHa/Machine-Learning/tree/main/HeartDiseasePrediction

**Fake News Detection Using Logistic Regression**

- Developed a machine learning model to classify news articles as real or fake using logistic regression.
- Performed data preprocessing by merging author names and titles, filling in missing values, and applying stemming.

- Converted text data into a numerical format using TF-IDF Vectorizer and trained the model with stratified sampling.
- Achieved an accuracy of 97% on test data, demonstrating effective fake news detection.
- Tools: Python, Pandas, NLTK, Scikit-learn

GitHub: https://github.com/RicardoGHa/Machine-Learning/tree/main/fakeOrRealnewsDecetion

**Computer Skills**

• **Data Science & Machine Learning:**

- **Frameworks:** Scikit-learn, PyTorch
- **Libraries & Tools:** Pandas, NumPy
- **Techniques:** Supervised Learning, NLP (Transformer architectures), Logistic Regression, Gradient Descent, Data Preprocessing, Model Fine-tuning
- **Databases:** SQL, MySQL, MongoDB

• **Programming Languages:**

- C++, Python, Java, SQL

• **Networking & Security:**

- Cisco Certified Network Associate (CCNA) Certificates:
    - Cisco CCNAv7: Introduction to Networking
    - Cisco CCNAv7: IT Essentials

• **Web Development:** HTML, CSS, JavaScript
• **Mobile Development:** Java (Android Development)

Languages
• Arabic: Mother language
• English
• French

**References are available upon request**