

Zeidan A. Braik

A dedicated mathematician seeking to use his skills in building a strong foundation in computer science and artificial intelligence

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📍 Nablus, Palestine

📅 20 / 08 / 1999

🌐 github.com/zaidanebreak/

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WORK EXPERIENCE

Teaching Assistant An-Najah National University

10/2023 - 12/2023

Nablus, Palestine

IGCSE Math Teacher for Secondary Level British Scientific School

10/2021 - 07/2022

Nablus, Palestine

EDUCATION

Master 2 in Optimization University Paris Saclay

09/2022 - 09/2023

Orsay, France, GPA: 14.23

B.S. in Mathematics An-Najah National University

08/2017 - 10/2021

Palestine, GPA: 3.75 / 4 (Excellent)

General Secondary Education Examination Latin Patriarchate Joseph School

08/2016 - 06/2017

Palestine, Grade: 97.4%

TRAINING

Master 2 Internship INRIA Saclay - RandOpt Team

05/2023 - 09/2023

Palaiseau, France

Internship entitled "Invariance in Optimization" held at CMAP - Ecole Polytechnique

Achievements/Tasks

- Comprehensive study on definitions of invariance in the search space for stochastic evolutionary algorithms.
- A proof has been done for (PSO and DE).
- State of the art on Learning to Optimize and Algorithm Configuration.
- Attempts to make the Guided Policy Search algorithm used to learn step size in CMA-ES algorithm invariant

Supervisors : Anne Auger - Nikolaus Hansen

Erasmus + Internship IJCLab - CNRS at University Paris - Saclay

07/2021 - 09/2021

Paris, France

Achievements/Tasks

- Applying various Machine Learning Models with Data Visualization on High Energy Physics Dataset about Higgs Boson.
- Using Testing Hypothesis to measure the Significance of Machine Learning Models like AMS significance & comparing between them.
- Learning Curve for the models used (BDT & NN) and trying to enhance the significance

Contact: Prof. David Rousseau - rousseau@lal.in2p3.fr

EXPERIENCES

Voluntary Internship Transcripta Translation Services

11/2019 - 02/2020

Valletta, Malta

Assisting General Managers with the following:

- Converting documents and preparing them for translation.
- Quality checking for translations.
- Preparing translated documents & ordering them to be delivered.
- Checking the translated documents to and from Arabic.

Erasmus + Mobility Exchange University of Malta

09/2019 - 02/2020

Msida, Malta

Covered Courses

- R programming and a project in data visualization and analyzing has been made
- Academic Writing and Statistical Techniques for Scientific Researchs.

Voluntary Peers Tutoring Help Session for Math - An-Najah National University

06/2018 - Present

Nablus, Palestine

An initiative organized by math students to help other university students in various math courses, and leading activities at university related to math.

Achievements:

- Lectures on weekly basis for general math courses.
- Prior exam sessions for discussions & solving past papers.

Faculty of Honor An-Najah National University

01/2019 - 05/2021

Nablus, Palestine

PERSONAL PROJECTS

Image Classifier for handwritten numbers (02/2023)

- I used the multinomial logistic regression with squared 2-norm as a loss function and minimized using stochastic gradient descent and ADAM with parameter tuning on MNIST dataset.

Electric Vehicles smart charging for decarbonization (02/2023)

- Project for the course applied game theory, a variation of the unit commitment problem for France electricity was solved using water filling and best response dynamics algorithms to satisfy energy demand while minimizing CO2 emissions

Benchmarking the CMA-ES algorithm with rank 1 update only. (01/2023)

- We used COCO platform to benchmark the CMA-ES Algorithm with rank 1 updates only by testing it on various types of functions.

Modeling and Solving an Industrial Production Planning Project. (12/2022)

- A project for the Course OR, where we modeled a planning for energy blocks production as a linear program and solved it using CPLEX.

BDT & NN for High Energy Physics Datasets (07/2021 - 09/2021)

- Applying XGBoost & Lightgbm models along with Neural Network on a simulated Dataset from the Large Hadron Collider for classification

Code + Design Bootcamp

PalTel Group Foundation

06/2019 - 07/2019,

Ramallah, Palestine

Four weeks of intensive in-person instructions & training by expertise from leading Silicon Valley's companies.

Covering:

- Learning Python & implementing Machine Learning Models.
- Statistical Concepts used in Supervised Learning models.
- Deep Learning & Neural Networks.
- Basic algorithms in Data Science.

I've been awarded a scholarship to enroll in the paid Nanodegree Program "Intro to Machine Learning with Pytorch" at Udacity.

SKILLS

Python

Maple

MATLAB

R

Latex

Adobe Photoshop

Adobe Premiere

Cope Ambiguities

CPLEX

LANGUAGES

Arabic

Native or Bilingual Proficiency

English

Full Professional Proficiency

French

Limited Working Proficiency