THAMER SARAEI

Ingénieur Génie industriel
Data Scientist , Machine Learning Développeur

Route Mahdia km7
Sfax - Tunisie

12.11.1994 +216 22 984 320

Mail : thamer.saraei@USherbrooke.ca

RÉSUMÉ PROFESSIONNEL

- Développeur **Machine Learning** passionné par la technologie moderne et par **la résolution de problèmes concrets.**
- **Data scientist** avec **deux ans** d'expériences et développeur **Python et R** avec plus de **3 ans d'expériences**.
- Expérience en **data engineering**, **machine learning** et **modelling**.

EDUCATION

08.2015 - 09.2018 — **École Nationale des Ingénieurs de Tunis (ENIT)**
Élève ingénieur en Génie Industriel-Finance

09.2013 - 06.2015 — **INSTITUT PREPARATOIRE D'ETUDE INGENIEURS DE SFAX**
Cycle préparatoire à l'Institut Préparatoire d'Etude Ingénieurs : Maths Physique : Rang :181/2400

09.2012 - 06.2013 — **Lycée Amra - Sfax**
Bacalauréat section Mathématique :
Obtention du Diplôme du baccalauréat : mention « Bien », moyenne : 15,87/20

EXPERIENCE

02.2018 - 08.2018 — **Université de Sherbrooke**
Stagiaire Data Analyst : Data Mining and Industry 4.0 in machine tolling company : Intégration des techniques de Data Mining dans le contexte de l'industrie 4.0.

- Data Cleaning : À partir de données brutes déjà collectées par une autre partie de l'équipe, j'ai normalisé & standardisé les données en utilisant des cadres de référence connus
- Features Engineering & Data Visualization
- Construire un modèle prédictif de Machine Learning pour prédire la qualité des pièces à produire
- Développement une Application web : https://rahtimor.shinyapps.io/Chart_Control_Online/

Mots Clés : Python&R, Tensorflow, Pandas, Numpy, Industry4.0, Algorithmes ML, Réseaux de Neurones

06.2017 - 08.2017 — **GREEN POWER COMPANY**
Stagiaire : Data Analyst

- Contribution aux études des stations de pompages PV
- Développement d'un outils d'analyse et d'aide à la décision en utilisant la langage Python

01.2017 - 05.2017 — **EURA NOVA Tunisia**
Stagiaire : Data Scientist : Customer segmentation

- Application les techniques de Data Mining dans un problème de segmentation clientèle au sein de l'entreprise EURANOVA
- **Mots Clés** : Rstudio,Langauge R,Algorithmes de machine learning(supervisé et non-supervisé),KMeans,CAH,Carte de Kohenen,Analyses Factorielle(ACP,AFM)

CERTIFICATION

- Certificat **Applied Machine Learning in Python, Université du Michigan-coursera**, Mars 2018
- Certificat **Machine Learning ,Université Stanford-Coursera ,** Janvier 2018
- Certificat **Spécialisation Deep Learning (5 cours), Deeplearning.ai-Unisversity Stanford,** Avril 2018
- Certificat **Mathematics for Machine Learning: Linear Algebra by Imperial College London on Coursera,** Juin 2018

COMPÉTENCES ET ACQUIS

- Python, NumPy, Scikit-learn, Pandas, OpenCV, TensorFlow, Keras
- **Programmation** : SQL, R, Matlab, C/C++, Java, Css, html, Django
- **Logicielles** : SPSS Modeler, Anaconda, Oracle 10g, Visual Studio, Power Amc Deseigner
- **Méthodes & Outils** : Lean mangement,Kanban,ERP,5S,Analyse de données.
- **Systémes d'exploitation :** LINUX(UBUNTU),WINDOWS

MAJOR PROJECTS

- **Projet** : Neural Style Transfer: Creating Art with Deep Learning using PYTHON

Détails : Le transfert de style neuronal (NST) est l'une des techniques les plus amusantes de Deep Learning : Deux images sont fusionnées, à savoir une image de «contenu» (C) et une image de «style» (S), pour créer une image «générée» (G). L'image générée G combine le "contenu" de l'image C avec le "style" de l'image S.
Environment : Python3.6, TensorFlow, Numpy, MatPlotLib,
Github Code : https://github.com/timotito/Cnn_Ann

- **Projet :** Implémentation Python d'un algorithme d'ordonnancement (JACKSON) flow shop (N taches sur M machines)

Détails : Heuristique CDS de Campbell, Dudek et Smith (1970): Cette méthode s'appuie sur la règle de Johnson. Elle consiste à générer m-1 solutions en appliquant l'algorithme de Johnson sur deux machines fictives. La première regroupe les k premières machines, la deuxième regroupe les k dernières, k varie de 1 à m-1. Les temps opératoires de chaque tâche i sur ces deux machines fictives sont la somme des temps opératoires sur les machines qu'ils regroupent.
Environement : Python3, Pandas, Numpy, Tkinter, MatplotLib
Démo : https://www.youtube.com/watch?v=uT9HpjZdi5E
Github Code : https://github.com/timotito/Algo_Cds_Ordanncement

- **Projet :** Jeu de la vie simple et graphique (tkinter) en python 3

Détails : Ma version du célèbre automate cellulaire Jeu De La Vie programmé en python dans sa version 3 (3.2.2 pour être précis). C'est une version simple, facile à comprendre (enfin il me semble) et graphique (tkinter). Il est possible de modifier la taille de la grille, la taille des cellules et l'attente entre chaque étapes.
Environment : Python, Tkinter
Démo : https://www.linkedin.com/feed/update/urn:li:activity:6395310458676477952
Github Code : https://github.com/timotito/Jeu_de_vie

- **Projet :** Coder l'algorithme du simplex à partir de rien en utilisant Python et Numpy

Détails : Implémentation en Python du problème du solveur methode Simplex pour la programmation linéaire (LP).
Environment : Python, Numpy
Démo : https://www.youtube.com/watch?v=DVX1lcYz11U&t=1s
Github Code : https://github.com/timotito/SIMPLEX-WITH-PYTHON

- **Projet :** Classificateur des maladies des plantes

Détails : Création d'une application d'IA pour la détection des maladies chez les plantes à l'aide de la plateforme d'apprentissage en profondeur de Facebook: PyTorch
Environment : GoogleColab, Gpu, Python, PyTorch, Numpy, Json
Code : https://colab.research.google.com/drive/1NsRJv32YoOyOuDugPAvU2A6Le9xby-o1#scrollTo=fnaEdkpylH3d

- **Project :** Application Web : Cartes de Contrôle Qualité

Détails : Shiny est un package R qui facilite la création d'applications Web interactives à partir de R. Les utilisateurs peuvent simplement importer le fichier donné et sélectionner la carte souhaitée. L'application Web affiche cette carte avec une petite explication sur cette dernière.
Environment : R, Shiny
Démo : https://rahtimor.shinyapps.io/Chart_Control_Online
GitHub Code : https://github.com/timotito/Statistical-Process-Control-Charts

VIE ASSOCIATIVE

- **2016-2017 :** École Nationale des Ingénieurs de Tunis - Club Fablab ENIT

Membre actif du club scientifique FABLAB ENIT

- **2015 - 2018 :** École Nationale des Ingénieurs de Tunis - Équipe universitaire de Football ENIT

LANGUAGES

Français ●●●●●○
Anglais ●●●●○○
Italien ●●○○○○

HOBBIES

Football Coding Cinéma

Stanford | ONLINE

COURSE CERTIFICATE

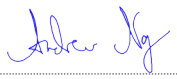
01/04/2018

Thamer Saraei

has successfully completed

Machine Learning

an online non-credit course authorized by Stanford University and offered through Coursera



Associate Professor Andrew Ng
Computer Science Department
Stanford University

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Verify at coursera.org/verify/YEE3W8QBPNCL

Coursera has confirmed the identity of this individual and their participation in the course.

5 Courses

- Neural Networks and Deep Learning
- Improving Deep Neural Networks: Hyperparameter tuning, Regularization and Optimization
- Structuring Machine Learning Projects
- Convolutional Neural Networks
- Sequence Models

04/14/2018

Thamer Saraei

has successfully completed the online, non-credit Specialization

Deep Learning

The Deep Learning Specialization is designed to prepare learners to participate in the development of cutting-edge AI technology, and to understand the capability, the challenges, and the consequences of the rise of deep learning. Through five interconnected courses, learners develop a profound knowledge of the hottest AI algorithms, mastering deep learning from its foundations (neural networks) to its industry applications (Computer Vision, Natural Language Processing, Speech Recognition, etc.).

Adjunct Professor
Andrew Ng
Computer Science

Verify this certificate at:
coursera.org/verify/specialization/7A35HYDGGDFG

UNIVERSITY OF TORONTO

COURSE CERTIFICATE

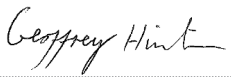
09/28/2018

Thamer Saraei

has successfully completed

Neural Networks for Machine Learning

an online non-credit course authorized by University of Toronto and offered through Coursera



Geoffrey E. Hinton
Department of Computer Science
University of Toronto

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UC San Diego

HIGHER SCHOOL OF ECONOMICS
NATIONAL RESEARCH UNIVERSITY

COURSE CERTIFICATE

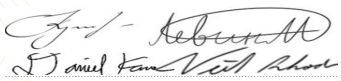
10/05/2018

Thamer Saraei

has successfully completed

Data Structures

an online non-credit course authorized by University of California San Diego and National Research University Higher School of Economics and offered through Coursera



Alexander S. Kulikov, Visiting Professor; Michael Levin, Associate Professor; Neil Rhodes, Adjunct Faculty; Daniel M Kane, Assistant Professor, Computer Science and Engineering at the University of California, San Diego

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Coursera has confirmed the identity of this individual and their participation in the course.

UNIVERSITY OF MICHIGAN

COURSE CERTIFICATE

03/21/2018

Thamer Saraei

has successfully completed

Applied Machine Learning in Python

an online non-credit course authorized by University of Michigan and offered through Coursera

Kevyn Collins-Thompson
Associate Professor
School of Information

Verify at coursera.org/verify/RSPBP6R92XLA

Coursera has confirmed the identity of this individual and their participation in the course.

UC San Diego

COURSE CERTIFICATE

10/10/2018

Thamer Saraei

has successfully completed

Machine Learning With Big Data

an online non-credit course authorized by University of California San Diego and offered through Coursera

Paul Rodriguez, Natasha Balac, Mai Nguyen and Ilkay Altintas
San Diego Supercomputer Center

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Coursera has confirmed the identity of this individual and their participation in the course.

NYU TANDON SCHOOL OF ENGINEERING

COURSE CERTIFICATE

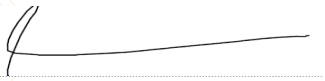
10/12/2018

Thamer Saraei

has successfully completed

Guided Tour of Machine Learning in Finance

an online non-credit course authorized by New York University Tandon School of Engineering and offered through Coursera



Igor Halperin
Research Professor of Financial Machine Learning
NYU Tandon School of Engineering

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Coursera has confirmed the identity of this individual and their participation in the course.

Imperial College London

COURSE CERTIFICATE

06/07/2018

Thamer Saraei

has successfully completed

Mathematics for Machine Learning: Linear Algebra

an online non-credit course authorized by Imperial College London and offered through Coursera

David Dye and Samuel J. Cooper

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Coursera has confirmed the identity of this individual and their participation in the course.

deeplearning

COURSE CERTIFICATE

04/14/2018

Thamer Saraei

has successfully completed

Improving Deep Neural Networks: Hyperparameter tuning, Regularization and Optimization

an online non-credit course authorized by deeplearning.ai and offered through Coursera

Adjunct Professor Andrew Ng
Computer Science

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COURSE CERTIFICATE

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deeplearning

COURSE CERTIFICATE

03/23/2019

Thamer Saraei

has successfully completed

Introduction to TensorFlow for Artificial Intelligence, Machine Learning, and Deep Learning

an online non-credit course authorized by deeplearning.ai and offered through Coursera

Laurence Moroney

Laurence Moroney
Staff AI Advocate
Google Brain

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Coursera has confirmed the identity of this individual and their participation in the course.

deeplearning

COURSE CERTIFICATE

04/14/2018

Thamer Saraei

has successfully completed

Structuring Machine Learning Projects

an online non-credit course authorized by deeplearning.ai and offered through Coursera

Adjunct Professor Andrew Ng
Computer Science

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deeplearning

COURSE CERTIFICATE

04/14/2018

Thamer Saraei

has successfully completed

Sequence Models

an online non-credit course authorized by deeplearning.ai and offered through Coursera

Adjunct Professor Andrew Ng
Computer Science

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Coursera has confirmed the identity of this individual and their participation in the course.

deeplearning

COURSE CERTIFICATE

01/18/2018

Thamer Saraei

has successfully completed

Neural Networks and Deep Learning

an online non-credit course authorized by deeplearning.ai and offered through Coursera

Adjunct Professor Andrew Ng
Computer Science

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COURSE CERTIFICATE

Verify at coursera.org/verify/KL349UPMGLWW

Coursera has confirmed the identity of this individual and their participation in the course.

deeplearning

COURSE CERTIFICATE

02/04/2018

Thamer Saraei

has successfully completed

Convolutional Neural Networks

an online non-credit course authorized by deeplearning.ai and offered through Coursera

Adjunct Professor Andrew Ng
Computer Science

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Coursera has confirmed the identity of this individual and their participation in the course.