

# Obada Al Zoubi, PhD

RESEARCH BIOMEDICAL DATA SCIENTIST · MACHINE LEARNING SCIENTIST

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Zoubi, PhD

## Summary

Biomedical Data&Machine learning Scientist with more than 10 years of experience in life science and therapeutics domains. Expert in solving problems using Machine Learning for biomedical data including brain imaging (MRI+EEG+fMRI), computational genomics, and drug design.

- In-depth experience in tackling healthcare and medicine problems using machine learning and artificial intelligence approaches.
- Forward-thinking scientist with solid backgrounds in signal processing, brain imaging, genetics, and healthcare data.
- Creative and self-motivated individual with excellent leadership skills, communication with strong analytical skills, and proven ability to meet tight deadlines for high-profile federal grants and worldwide collaborative projects.
- Understand business needs and data challenges across different life sciences fields.

## Work Experience

### Omega Therapeutics

MA, USA

SENIOR DATA SCIENTISTS/DEEP LEARNING RESEARCHER

Dec. 2021 - Present

- Designed and build overall pipelines of the machine learning modeling and prediction from sequence and 3D genomics data ( AWS SageMaker, Data lakes, Docker, AWS ECR & AWS Batch).
- Design and implement salable feature extraction from public data harvesting infrastructure (Amazon AWS and on-premise).
- Generate AI-driven businesses decisions and recommendations (SHAP, LIME & Amazon SageMaker Clarify).

### Broad Institute of Harvard and MIT

MA, USA

RESEARCH ASSOCIATE

Sep 2020 - Present

- Build large scale machine learning models for gene expression data predictions.

### Harvard Medical School

MA, USA

RESEARCH ASSOCIATE

Sep 2020 - Present

- Build large scale machine learning models for gene expression data predictions.

### MIT Computer Science & Artificial Intelligence Laboratory

MA, USA

RESEARCH ASSOCIATE

Sep. 2020 - Dec. 2021

- Develop machine learning models from big multi-modal brain imaging and genomics data.

### Harvard Medical School/McLean Hospital

MA, USA

POST-DOC RESEARCH FELLOW

Sep 2019 - Nov 2020

- Develop machine learning models for understanding brain disorders.

### Laureate Institute for Brain Research

Tulsa, OK, USA

POST-DOC RESEARCH FELLOW

Sep 2019 - Nov 2020

- Build machine learning pipelines for analyzing spatio-temporal data (EEG-fMRI).
- Develop methods for brain-computer-interface and neurofeedback.

### Dept. of Electrical and Computer Engineering, University of Oklahoma

Norman, OK, USA

INSTRUCTOR

Jan. 2020 - Nov. 2020

- Teaching machine learning for graduate and undergraduate Students.

## Leadership

### The University of Oklahoma - Tulsa Campus

OK, USA

PRESIDENT OF STUDY BODY

Sep. 2018 - Jun. 2019

- Coordinating all student council activities and lead student council meetings.
- Represent the student body to the institution.

### The University of Oklahoma - Tulsa Campus

OK, USA

PH.D. PROGRAM REPRESENTATIVE

Sep. 2017 - Jun. 2018

- Represent PhD students to student body and communicate matters among PhD students and university.

## Education

## The University of Oklahoma

PH.D. IN ELECTRICAL AND COMPUTER ENGINEERING

- Linking EEG to fMRI and Predicting brain disorder using Machine Learning

OK, USA

Jan. 2016 - Aug. 2019

## American University of Beirut

MASTER OF SCIENCE IN ELECTRICAL AND COMPUTER ENGINEERING

- Spatio-temporal pattern recognition using biologically inspired Machine Learning

Beirut, Lebanon

Sep. 2013 - Dec. 2016

## Aleppo University

BACHELOR OF SCIENCE IN ELECTRICAL AND ELECTRONIC ENGINEERING

- Electronic and Electrical Design, Signal Processing, Machine Learning, Software Engineering

Aleppo, Syria

Sep. 2005 - Jun. 2010

## Self Development

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### DeepLearning.AI

DEEP LEARNING SPECIALIZATION

- Five courses on foundations of deep learning.

2020

### DeepLearning.AI

AI FOR MEDICINE

- Three courses on applying AI to medical use cases.

2022

## Science Communication and Teaching

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### Advanced Machine Learning Course

INSTRUCTOR

- Taught Advanced Machine learning course for graduate and undergraduate students.

University of Oklahoma

2020-2021

### IEEE GlobSIP 2018 Conference

SPEAKER

- Presented my work on polarity invariant transformation for EEG microstates analysis.

CA, USA

Nov. 2018

### IEEE ICCICC 2018 Conference

SPEAKER

- Presented my work on Hierarchical Fusion Evolving Spiking Neural Network for Adaptive

UC Berkeley, CA, USA

Jul. 2018

### Float 2017 Conference

SPEAKER

- A Data-driven Approach for analyzing fMRI data.

Oregon, USA

Sep. 2017

### Computer Organization & Electric Circuits

TEACHING ASSISTANT

- Teaching undergraduate students Computer Organization course at the ECE dept.

American University of Beirut

2013-2015

## Honors & Awards

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2021 **Fellowship**, National Institutes of Health (T32)

MA, USA

2018 **Best Paper Award**, IEEE 13th International Conference on Innovations in Information Technology

Al Ein, UAE

2019 **Award**, The University of Oklahoma Board of Regent Appreciation for Contribution

MA, USA

2016 **Scholarship**, University of Oklahoma

OK, USA

2018 **2nd Place**, Oklahoma University Research Forum 2018 Poster

OK, USA

2018 **3rd Place**, Oklahoma University Research Forum 2018 Poster

OK, USA