

# Zahra Zabihinpour

#### **Data Scientist**

I'm a Data Scientist with a background in research, statistics, physics, and chemistry. I love tackling data challenges from different perspectives and finding creative solutions.



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## **Experience**

## **Data Scientist**

LUNA - Paris, France

Machine Learning modeling, Natural Language Processing (NLP), Python Programming, Data Manipulation and Analysis, Image Processing, Data Extraction and OCR, Docker

- Developing a prescription reader application
- · Extracting key information such as medicine's names, posology, etc.

## Researcher

Institute for Research in Fundamental Sciences – Iran 2018-2021

Numerical Simulation, Mathematical Modeling, MATLAB Programming, Chemical Kinetics

- · Stochastic simulation of chemical kinetics
- · Mathematical modeling of biological systems

### Lecturer

Kharazmi University – Iran

2012-2018

Statistical Thermodynamics, Physical Chemistry, MATLAB Programming

Taught courses:

- Statistical Thermodynamics
- MATLAB Programming
- Physical Chemistry
- · Molecular Spectroscopy



## **Education**

## Data Scientist Training – FullStack

Jedha Bootcamp, Paris, France

Image classification, Convolutional Neural Network, Transfer Learning

- Designed and trained a deep learning model to analyze chest CT scan images for the early detection of lung cancer.
- Developed and deployed a web application using deep learning and Streamlit for the classification of chest CT scan images, achieving 96.3% specificity, and 80% accuracy.

## Ph.D., Physical Chemistry

Kharazmi University, Tehran, Iran

 ${\bf Numerical\, Simulation,\, C\,\, programming,\, Statistical\,\, analysis - Power\,\, Law\,\, Probability Distribution}$ 

- $\bullet \ \text{Numerical simulations of superdiffusion utilizing power law probability distribution} \\$
- Proof of nonergodicity of Lévy flight through the extraction of analytical formulas



## **Skills**

## Programming

Python, C, MATLAB, SQL

#### **Data Visualization**

Matplotlib, Seaborn, Plotly

### Image Processing

OCR, OpenCV, Pillow

#### **Machine Learning**

Supervised Learning, Unsupervised Learning, Scikit-Learn, Reinforcement Learning, Model Evaluation and Validation, Feature Engineering

#### **Deep Learning**

Natural Language Processing (NLP), Recurrent Neural Networks (RNNs), Convolutional Neural Networks (CNNs), TensorFlow, Transformers, Hugging Face

#### **Code collaboration**

Git, GitHub, Bitbucket

### **Web Scraping**

Data Extraction, HTML Parsing, Web Data Collection, Beautiful Soup, Selenium

#### Industrialization

Docker, Deployment

# Physical Chemistry/ Statistical Thermodynamics

Numerical Simulation, Gaussian Distribution, Power Law Distribution, Chemical Kinetics



## Languages

English: Professional Working Proficiency

French: Intermediate

Persian: Native



### Certifications

Concepteur - Dévelopeur en Science des données, *Jedha Bootcamp* 

Machine Learning A-Z: Hands-On Python and R in Data Science, **Udemy** 

Python for Data Science, Udemy