Suliman Bouizaguen

28 rue de Hegenheim 68300 Saint-Louis | +33 6 51 70 87 24
suli.2510@gmail.com

Data Scientist with nearly 5 years of experience in machine learning/deep learning, image analysis and NLP in the fields of healthcare and computational biology.

Skills

Programming	Bash, Java, Python, R, Spark, SQL, HTML/CSS/Javascript, Django, Docker.
Libraries and tools	AWS, Git, ImageJ, OpenCV, Pandas, Pytorch, QuPath, Scikit-image, Scikit-learn, Spacy, Nltk, TensorFlow.
Langages	French (native), English (C1), German (B1).

Experience

2022 - Now

Data Scientist - Computational biology - Drug discovery

Focal Biosciences, Basel, Switzerland

-› Established an image-based analysis pipeline for a high throughput screening platform (HTS) and for assay development support, including the development of scoring and hit calling methods, generation of quantification reports and visualization plots and statistical analysis.
-› Developed an analysis pipeline to analyze biomedical images (tissue, 2D and 3D) with different biomarkers. From image registration, quality check, segmentation using deep learning models, post-processing steps, until classification of cell populations and phenotypes using machine learning.
-› Management of cloud storage and computation using AWS (S3, EC2).
Tools : **AWS, Git, Keras, ImageJ, OpenCV, Python, QuPath, Sckit-image, Scikit-learn, TensorFlow.**

2020 - 2022

Data Scientist - Computational pathology

Keen Eye, Paris, France

-› Performed artificial intelligence app development and containerization to analyze medical images for different clients, CROs, Pharmaceuticals, research centers.
-› Whole slide segmentation of different cell phenotypes on multiplex immunofluorescence images.
-› Classification and quantification of biomarkers on multiplex immunofluorescence and immuno-histochemistry images based on Deep Learning EfficientNet architecture.
-› Tumoral micro-environment spatial analysis. Generated quantification reports and distance based analysis.
-› Multiple-instance learning for classification and scoring of prostate cancer slides based on ResNet architecture and attention models.
Tools : **AWS, Docker, Git, OpenCV, Python, Sckit-learn, TensorFlow.**

Jul - Sep 2019

Software engineer intern

FEV Software and Testing Solutions GmbH, Aachen, Germany

-› Development of plug-ins on Confluence platform, including fetching, parsing and processing of data for statistical analysis purposes.
-› Vehicles' engine control unit (ECU) calibration and parameters optimization of ECUs performed on a cluster.
Tools : **Bash, Java, Python, Spark.**

Education

2019 - 2020 — MSc in Data Science : Finance, Insurance, Health, **Université Paris-Saclay**
Machine Learning, Statistics, Deep Learning, Optimization, Numerical finance.

2017 - 2020 — Master of Engineering, **Télécom SudParis, Institut Polytechnique de Paris**
Major : Mathematics, Statistics and Applications
Probability, Signal theory, Machine Learning, Object-oriented programming, Statistics.

2014 - 2017 — Preparatory Classes MPSI/MP*, **Lycée Albert Schweitzer**
Preparation for competitive exams of engineering schools.

Publications and Projects

Mar - Sep 2022	**Deep Learning based image analysis on Breast and Ovarian cancer tissue** *"Immunogenomic profiling of the randomized NeoPembrOv trial reveals regulatory T cells and the VEGFR2 angiogenic axis as promising actionable targets to overcome immunoresistance of high-grade ovarian carcinomas"* Published in Nature communications, link here. Tools : **Python, Tensorflow, Scikit-Learn, Git, Docker.**
Sep - Jan 2020	**Web development: Voting app** Implemented a web-based voting application, handling multiple users account creations, voting, becoming candidate. Used SQlite as database for storage. Tools : **Python, Django, HTML, SQlite.**

Interests

Volunteering	Collected funds to prevent a hospital's physiotherapy from closing in Romania.
Sport	Football, Fitness, Chess, Nutrition.