

Muhammed Kouate

BSc STUDENT IN COMPUTER SCIENCE · STUDENT RESEARCHER IN COMPUTER VISION

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Education

ETH (Eidgenössische Technische Hochschule Zürich)

RESEARCH ASSISTANT IN MEDICAL IMAGING ANALYSIS

Zurich, CH

Incoming (April 2022)

- Working on a project on Medical Imaging Analysis with Deep Learning techniques.
Co-supervised by Prof. Ender Konukoglu, Prof Niki Martinel and G. Bredell.

Stanford University

VISITING STUDENT RESEARCHER (COMPUTATIONAL NEUROSCIENCE LAB)

California, USA (Remote)

March 2021 - Oct. 2021

- Worked on a semester project co-supervised by Professor Ehsan Adeli and Professor Niki Martinel.
Topic: generation of images starting from the text with DALL-E.

Università degli studi di Udine

B.S. IN COMPUTER SCIENCE AND ENGINEERING

Udine, Italy

Oct. 2017 - Present

- Relevant coursework: Data Science, Machine Learning for Big Data, Data Analytics (elective course), Computer Vision (elective course), Internet of Things, Algorithms and Data Structures, Calculus, and Databases.

Experience

Google

STUDENT RESEARCHER, SOFTWARE ENGINEER

Paris, France

Incoming (October 2022)

- Incoming Student Researcher at Google Research (PAIR group).
Supervisor: Lucas Dixon.

BidPremium Srl

AI ENGINEER IN COMPUTER VISION (PART-TIME)

Udine, Italy

March 2020 - Present

- Analyzed the state-of-the-art to identify the most appropriate techniques for the task (papers, and surveys).
- Collected a curated dataset with scripts in Python (CVAT, PASCAL VOC, COCO, and YOLO format).
- Implemented the most promising models with Pytorch or Tensorflow, and tested their performance on the internal dataset.
- Development and maintenance of Web Services and / or API (Flask API) with related documentation for the customer.

Towards Data Science

ARTIFICIAL INTELLIGENCE WRITER

Canada (Remote)

February 2021 - Present

Selected by Towards Data Science as AI Writer to write several articles. Currently, my blog posts have received more than 1.7K views.

Datamantix Srl

AI SOFTWARE DEVELOPER (PART-TIME)

Udine, Italy

Nov. 2019 - March 2020

Cleaned the datasets through Python scripts, and performed the training with Fast.ai or Pytorch.
Project for which I actively contributed: detection of diabetic retinopathy through deep learning techniques.

Skills

Programming Languages	Python3, Java SE, Scheme, Javascript
Technical Skills	Bash, Zsh, SSH, LaTeX, Markdown, Jupyter Notebook, RegEx, debugging (GUI, gdb), TDD, OOP
Frameworks and Libraries	Pytorch, Tensorflow, OpenCV, Fast.ai, NumPy, SciPy, Matplotlib, Sklearn, Flask API
Software	Git, GitHub, Linux/Windows/macOS, Jupyter Notebook/Lab, VS Code, Pycharm
Languages	English, French, Italian (native), Wolof (Native)

Honors & Awards

July 2021	PRAIRIE MIAI Artificial Intelligence Summer School, Student , Summer School organized by Prairie and MIAI@GRENOBLE ALPES with the support of Inria and NAVER LABS Europe. Topics: Computer Vision, NLP, robotics, and healthcare. Speakers: Cordelia Schmid, Yann LeCun, and many more.	<i>France (Virtual)</i>
Jan. 2021	DeepMind, Student , Selected by DeepMind to participate in M2L structured around 6 days of keynotes, lectures, and practical sessions. Topics: Generative models, Deep Reinforcement Learning, and many more. Speakers: Christopher Bishop, David Silver	<i>Milan, Italy (Virtual)</i>
Nov. 2020	Huawei, "Seed For the Future", Intern , Chosen by Huawei among Top 50 Italian ICT talented students to attend a training program (AI, IoT, and many others).	<i>Beijing, China (Virtual)</i>
Oct. 2020	Lead The Future, Mentee , Among the few Italian students selected to be mentees for LeadTheFuture, with an acceptance rate below 20%. Mentor: Francesco Visin, DeepMind	<i>Italy</i>
2019	UNIUD , Scholarship winner thanks to academic performance.	<i>Udine, Italy</i>
2018	UNIUD , Scholarship winner thanks to academic performance.	<i>Udine, Italy</i>
2016	UNESCO , Guest of honor at "Language Marty's Day and International Mother Language Day".	<i>Milan, Italy</i>

Certifications

In progress, AI for Medicine Specialization - Deeplearning.ai	<i>Coursera</i>
Jan. 2021 , Intro to Deep Learning with Pytorch	<i>Udacity</i>
Nov. 2020 , Deep Learning Specialization - Deeplearning.ai	<i>Coursera</i>

Articles

Feb. 2021 , Classic Seq2Seq model vs. Seq2Seq model with Attention "Let's pay Attention now!" LINK	<i>Towards Data Science</i>
Feb. 2021 , Popular Datasets for 3D Human Pose Estimation "Acquire the knowledge to interpret and create your own datasets" LINK	<i>Towards Data Science</i>