Alidor MBAYANDJAMBE

Looking for a Master2 internship in Computer Science (Research)
Goals : After my internship, I plan to pursue a thesis, then a Pos-Doc.

CONTACT

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SKILLS

- **Programming languages:** Python, VB.Net, Java
- **Library Machine Learning:** Scikit-learn, Numpy, Matplotlib, Pandas, Seaborn, Scipy.
- **Library Deep Learning:** PyTorch, TensorFlow
- **IDE**: NetBeans, Jupyter Notebook,
- **Computer vision**: OpenCV, YOLO, image segmentation, object tracking

LANGUAGES

French: Native speaker

English: Intermediate

EDUCATION

2023 - 2025
Master in Computer Science in double degrees:
Vietnam National University, Hanoi, (Vietnam): Intelligent and Multimedia Systems (**SIM**)
University of La Rochelle (France): Digital Content Engineering for Enterprises (**ICONE**)
2016 - 2017
Bachelor's degree, BAC+5: Business Computing
University of Kinshasa (UNIKIN), Kinshasa-R.D. Congo

PROFESSIONAL EXPERIENCE

June 2017 to present
Teaching Assistant - University of Kinshasa, Kinshasa, R.D Congo - CDI
- Faculty of Sciences, Department of Mathematics and Computer Science
September-December 2022
Data Cleaner- Independent National Electoral Commission (CENI), DRC
June 2016-September 2020
IT Manager - National GIS Office, Kinshasa, DRC
February to June 2018
Data Cleaner- Commission Electorale Nationale Indépendante (CENI), DRC

MASTER'S AND PERSONNAL PROJECTS

- **Object Detection, Segmentation and Tracking with YOLOv8:** Implementation of an object detection model trained on a custom dataset. Integration of real-time instance segmentation and object tracking with YOLOv8(Dataset: Pothole-Image, PPE-Detection, Pen and Book Detection)
- **Detection of synthetic images generated by generative models (GAN) :** Detection and classification of synthetic images with deep neural networks.
- **Camera calibration and implementation of stereo/3D architectures:** Development of solutions for depth perception and analysis of three-dimensional objects.
- **Detection and Recognition of Cheating Movements in an Exam Room using Deep Learning:** Implementation of an intelligent surveillance system using YOLOv4 and an LSTM model to detect and recognize cheating behaviors in an exam room in real time.
- **Application of Artificial Intelligence for Automatic Detection of Pneumonia on Chest X-rays:** Development of a classification model based on convolutional neural networks (CNN) to automatically detect pneumonia from chest X-rays. Use of TensorFlow and optimization of hyperparameters to improve model accuracy.
- **Analysis and Classification of Soil Types from Satellite Imagery Using Artificial Intelligence Algorithms:** Development of a classification model based on convolutional neural networks (CNN) and the Random Forest algorithm to analyze and classify soil types from satellite images, in the context of precision agriculture.
- **Deep Learning for Image Segmentation with Python and PyTorch:** Creation of an image segmentation model using the U-Net architecture and the PyTorch library for semantic segmentation tasks.
- **Lingala Print Recognition via Deep Learning**: Implementation of a Lingala print recognition system using convolutional neural networks (CNN), LayoutLM and the Connectionist Temporal Classification (CTC) algorithm for accurate recognition of character sequences.

CERTIFICATIONS

- Python for financial data analysis at DataSciente-France 2024
- Data Science: CNN & OpenCV: Chest X-ray detection of pneumonia: Udemy 2024
- Mastering image segmentation with PyTorch: Udemy 2024
- The basics of Machine Learning: Linkedln in Feb 2023
- Mastering OCR using Deep Learning and OpenCV-Python: Udemy in Oct 2023
- Machine Learning in Telecommunication: Boost your career with Machine Learning 2024

INTERNSHIP

- Recognition of actions in images Recognition of actions in images or videos: Smart Classroom application using Deep Learning techniques in the AI 4.0 Lab at VNU-ITI, Hanoi (2024)
- Online internship: Virtual introduction to AI, data science and statistics: UtKarsh Minds Institute, India (2024)
- Academic internship at the Department of Information Systems and Technology (DSTI), RAWBANK General Management (2016)

PUBLICATIONS

- Alidor M. Mbayandjambe, Selain K. Kasereka, Vinh Ho Tuong (2024). ***Enhancing Printed Lingala Script Recognition using Deep Learning Techniques*** [Manuscript submitted for publication and accepted] in International Journal of Advanced Computer Science and Applications (IJACSA).
- Alidor M. Mbayandjambe, Selain K. Kasereka, Jean Didier M. Batubenga, Vinh Ho Tuong (2024). ***Unmasking the Virtual: Advanced AI-generated Image Detection Techniques***. [Manuscrit in preparation].
- Alidor M. Mbayandjambe, Petro M. Tshakwanda , Selain K. Kasereka, Jean Didier M. Batubenga, Vinh Ho Tuong, Alain M. KUYUNSA (2024). ***Merging SENet and CBAM in CNNs for Optimized Image Classification on CIFAR-10***. [Manuscrit in preparation].

DISTINCTIONS AND AWARDS

- Best research project at the Symposium Smart City: Experiences and Innovations ISSCEI 2023 & Smart Campus Asia Pacific Competition SCAPA 2023, The University of Danang January 12th, 2024
- Institut Francophone International (IFI) Excellence Scholarship for Master in Computer Science, 2023
- Excellence scholarship awarded by the University of Kinshasa for my academic distinction, 2018.
- Best research project at the Symposium for Young Researchers in Computer Science, University of Kinshasa, 2016

REFERENCES

- Dr. HO Tuong Vinh, Teacher, Researcher at Institut Francophone International-National University of Vietnam: Hanoi, Vietnam:

  vinhht@vnu.edu.vn
- Dr. Selain Kasereka, Teacher, Researcher at University of Kinshasa, Kinshasa, DR. Congo:
  selain.kasereka@unikin.ac.cd