Abdelrahman Abdallah

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Profile Links: <u>Github</u>, <u>University</u>, and <u>Linkedin</u>,

PROFESSIONAL SUMMARY

A machine learning engineer passionate about cutting-edge technology and solving real-world problems, with previous experience in computer vision and natural language processing, leading a lean team, and developing new products.

SKILLS

- Data Science: Machine and Deep Learning, Computer Vision, NLP
- Programming Language: Python, PHP, Java
- Package: Tensorflow, Scikit-learn, Pytorch, Keras
- Web: Laravel, HTML & CSS, Jquery, JavaScript
- Tools: Pycharm, Anaconda, Jupyter notebook

EXPERIENCE

10/2022 to now

Researcher Assistant, Digital Science Center (DiSC)

Universität Innsbruck- Innsbruck, Austria

- knowledge extraction and information retrieval from unstructured text documents
- Methods for Natural Language Processing and Information Retrieval
- application of text mining methods to the field of digital history

01/2022 to 10/2022 Machine Learning Researcher

Università Ca' Foscari – Venezia, Italy

Preliminary comparative analysis between graph neural network and random forest models for climate change tasks.

- Review paper on ML/AI models for risk assessments.
- Survey on graph neural network for spatial-temporal data.

08/2021 to now

Machine Learning Engineering (part-time)

DISCO App- Cairo, Egypt

- Working on Receipt extraction, OCR system, and NLP.
- Built and improve the accuracy of the OCR system for receipt and extracting the information and classifying them.
- A demo of our work can try in the <u>AWS link</u>.
- The application is live on <u>Google Store</u>.

08/2021 to 06/2022 Machine Learning Engineering

KMG Engineering- Nur-Sultan, Kazakhstan

- Working in inpainting images using GAN.
- English Grammar Correction using deep learning.
- Curve detection and track.

Machine Learning Researcher

National Open Research Laboratory for Information and Space Technologies – Satbayev University, Almaty, Kazakhstan

- built the handwritten Kazakh, Russian database. The database can serve as a basis for research in handwriting recognition.
- tried to describe various approaches and achievements of recent years in the development of handwritten recognition models about Cyrillic characters.
- built the table detection database. The database can be used for machine learning and deep learning model.
- building a new model to achieve a good result in table detection and classification.

11/2019 to 06/2021

07/2016 to 06/2019 Research and Teaching Assistant

Assiut University, Faculty of Computers and Information - Assuit, Egypt

- Represented the team at meetings with executives and discussed project goals and milestones.
- Kept abreast of emerging technologies, software, and trends and applied them to projects.
- Teach classes, work with students in laboratories, grade papers, and projects or work directly for a professor.

06/2019 to 11/2019 Software Developer

Ccc at limkokwing university, - Cyberjaya, Malaysia

- Developed and implemented a scanning component using MySQL, PHP.
- Built databases and table structures following n-tier architecture methodology for web applications.
- Designed and developed Using Expression Engine Framework in php.

01/2016 to 08/2017 Web Developer

FastKood Company – Cario, Egypt

- Converted mockups into HTML, JavaScript, AJAX and JSON.
- Represented the team at meetings with executives and discussed project goals and milestones.
- Kept abreast of emerging technologies, software, and trends and applied them to projects.
- Hands-on experience using UNIX and Apache web servers.
- Developed data architecture design to enable analysts to perform targeted customer analysis.
- Developed work-flow charts and diagrams to ensure production team compliance with client deadlines.

06/2015 to 01/2016 Software Developer

Overcoffeesolutions, Assiut, Egypt - Assuit, Assuit

- Developed object-oriented software.
- Designed intuitive graphical user interfaces using knowledge of serial communications and database design.
- Developed and implemented a scanning component using MySQL.
- Built databases and table structures following n-tier architecture methodology for web applications.
 - Designed and developed 8 computer software web applications.

EDUCATION

2019 to 2021	Master of Science: Data Science and Machine Learning Faculty of Information and Telecommunication Technologies –Satbayev University
2011 to 2015	Bachelor of Science: Computer Science Faculty of Computer and Information – Assuit University
2016 to 2017	Pre-Master of Science: Computer Science Faculty of Computer and Information – Assuit University

CERTIFICATIONS

- Data Science in Python from Coursera
- Neural Networks and Deep Learning from Coursera
- Deep Neural Networks Hyperparameter tuning, Regularization, and Optimization from Coursera

- Structuring Machine Learning Projects from Coursera
- Convolutional Neural Networks from Coursera
- Sequence Models from Coursera
- Deep Learning Specialization from Coursera

• Mathematics for Machine Learning Specialization from Coursera

PUBLICATIONS

• TNCR: Table Net Detection and Classification Dataset. In <u>Neurocomputing Elsevier</u>.

- Handwritten Kazakh and Russian (HKR) database for text recognition. <u>In Multimed</u> <u>Tools Appl (2021)</u>.
- Attention-Based Fully Gated CNN-BGRU for Russian Handwritten Text. In J. Imaging.
- KOHTD: Kazakh Offline Handwritten Text Dataset. In <u>Signal Processing: Image</u> <u>Communication</u>
- Automated Question-Answer Medical Model based on Deep Learning Technology. In <u>ICEMIS'20</u>.
- Classification of Handwritten Names of Cities and Handwritten Text Recognition using Various Deep Learning Models. In <u>ASTES Journal</u>.
- Hamada, M. A., & Abdallah, A. (2021). Neural Network estimation model to optimize timing and schedule of Software Projects. In <u>IEEE CONFERENCE</u>.
- Developing Predictive Oil Well Diagnostics Based on Intelligent Algorithms. In <u>IEEE</u> <u>CONFERENCE</u>.
- AE-LSTM: Autoencoder with LSTM-Based Intrusion Detection in IoT. In <u>IEEE</u> <u>CONFERENCE</u>.
- A survey on graph neural network for spatio-temporal data (Under Publishing)
- Deep learning for table detection and structure recognition: A survey (Under Publishing)

PROJECTS

- 1. Receipt OCR and Information Extraction
- 2. HKR For Handwritten Kazakh & Russian Database
- 3. TNCR: Table Net Detection and Classification Dataset
- 4. Automated Question-Answer Medical Model based on Deep Learning Technology

LANGUAGE

- Arabic: Native
- English: Fluent (Duolingo: 140)

AWARDS

1. Scholarship to study master's at Satbayev University