

**Address:** Giza, Egypt

**Bahaa El-din**

**Military Status:** Exempted

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**Birthdate:** 26/12/1995

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**Helmy  
Shaban**

**Nationality:** Egyptian

## Technical Skills

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*Proficient or familiar with several programming languages, tools/IDEs, and conceptual knowledge, such as:*

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- **Languages:**  
MATLAB, Python, Java, C++, SQL, PHP, MySQL, HTML, CSS, Java-Script, Bootstrap, and Latex.
- **My research interests include**  
Meta-heuristic optimization algorithms, Image processing, Image Segmentation, Deep Learning, and Machine Learning.

## Experiences

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### *Artificial Intelligence Projects:*

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- **Complete** freelancing project to predict load electricity
  - [https://github.com/BahaaHelmy/Load Electricity Prediction Model](https://github.com/BahaaHelmy/Load_Electricity_Prediction_Model)
- **Complete** freelancing project to predict covid-19 infected cases from X-ray images
  - <https://github.com/BahaaHelmy/Covid-19-Prediction-Demo>
- **Complete** This is a simple python script for scraping data from WUZZUF website.
  - [https://github.com/BahaaHelmy/Wuzzuf web Scrapping demo](https://github.com/BahaaHelmy/Wuzzuf_web_Scrapping_demo)
- **Complete** dashboards using power bi
  - [https://github.com/BahaaHelmy/Dashboards\\_using\\_Power\\_Bi](https://github.com/BahaaHelmy/Dashboards_using_Power_Bi)
- **Complete** classification and optimization of a deep CNN model with Genetic Algorithm to classify infected COVID-19 cases.
  - [https://github.com/BahaaHelmy/HyperParameter Tuning](https://github.com/BahaaHelmy/HyperParameter_Tuning)
- **Complete** an exploratory data analysis (EDA) for the Startups-Expansions dataset using python.
  - <https://github.com/BahaaHelmy/Startups-Expansion-Case-Study>
- **Complete** a CNN prediction model for a Brain tumor classification problem using python.

- [https://github.com/BahaaHelmy/Brain\\_Tumor\\_CNN\\_Classification](https://github.com/BahaaHelmy/Brain_Tumor_CNN_Classification)

**Complete** LSTM deep neural networks to classify text as spam and ham.

- [https://github.com/BahaaHelmy/Text\\_Classification\\_LSTM](https://github.com/BahaaHelmy/Text_Classification_LSTM)

- **Complete** a CNN prediction model for Brain tumor classification problem using python.
  - [https://github.com/BahaaHelmy/ResNet101\\_Heart\\_Beats](https://github.com/BahaaHelmy/ResNet101_Heart_Beats)
- **Complete** the implementation of the most pre-processing operations for image processing from scratch using openCV
  - <https://github.com/BahaaHelmy/ImageProcessing>
- **Complete** a classification model of Arabic sign language recognition using deep CNN.
  - [https://github.com/BahaaHelmy/Arabic\\_Sign\\_Recognition](https://github.com/BahaaHelmy/Arabic_Sign_Recognition)
- **Complete** the implementation of Encryption Algorithm (DES) in JAVA from scratch
  - [https://github.com/BahaaHelmy/DES\\_JAVA\\_FROM\\_SCRATCH](https://github.com/BahaaHelmy/DES_JAVA_FROM_SCRATCH)
- **Complete** compiler grammar project in java from scratch
  - <https://github.com/BahaaHelmy/CompilerGrammar>

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### *Research publication experience:*

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- **A novel Black Widow Optimization algorithm for multilevel thresholding image segmentation**
  - Journal: Expert Systems with Applications
- **An improved tunicate swarm algorithm for global optimization and image segmentation**
  - Journal: IEEE Access
- **An enhanced Archimedes optimization algorithm based on Local escaping operator and Orthogonal learning for PEM fuel cell parameter identification**
  - Journal: Engineering Applications of Artificial Intelligence
- **Multi-level Thresholding Image Segmentation Based on Nature-Inspired Optimization Algorithms: A Comprehensive Review**
  - Journal: Metaheuristics in Machine Learning: Theory and Applications
- **An efficient multi-thresholding-based COVID-19 CT images segmentation approach using an improved equilibrium optimizer**
  - Journal: Biomedical Signal Processing and Control
- **An efficient orthogonal opposition-based learning slime mold algorithm for maximum power point tracking**

- Journal: Neural Computing and Applications
- **Modified honey badger algorithm-based global MPPT for triple-junction solar photovoltaic system under partial shading conditions and global optimization**
  - Journal: Energy
- **Optimal reconfiguration strategy based on modified Runge Kutta optimizer to mitigate partial shading conditions in photovoltaic systems**
  - Journal: Energy Reports

## Work Experience

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- *Lecturer – Computer science.* (From 2019-To-Pesent)
- *Move Up – Android instructor.* (From 2018-To-2019)
- *Android developer freelancer.* (From 2017-To-2019)
- *Mobile Application Launchpad – Trainee.* (From 2016-To-2017)
- *Trainee at BBI Software Company.* (From 2015-To-2016)

## Education

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- **Had a master's degree** in Computer Science from Minya University in 2021.
- **Graduation from:** computer and information, Beni-Suef University.
- **Department:** Computer Science.
- **Overall grade:** Very Good - Total GPA is 3.67/4.
- **Graduation project grade:** Excellent.
- **Graduated second** in my class at **Beni Suef** in **2018**.
- **Google and Udacity (MAL)** – Mobile Application Launchpad program.
- *Udacity - Android Developer Nano degree.*
- *Huawei (HCIA)– Huawei Artificial Intelligence Certified Candidate.*

## Profiles

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- My portfolio: <https://bahaahelmy.000webhostapp.com/>
- Research Gate profile: <https://www.researchgate.net/profile/Bahaa-Helmy>
- Google Scholar profile: <https://scholar.google.com/citations?user=BhCuNS4AAAAJ&hl=en>
- LinkedIn profile: <https://www.linkedin.com/in/bahaa-el-din-helmy-867108116/>
- YouTube channel: <https://www.youtube.com/channel/UC976aD3JoSpCLlPk0SKeG3>