Name: Mohammed Ahmed Mohammed Ahmed Farahat

Birth date: 21/01/1989

Nationality: Egyptian

Marital status: Single

Military Status: Exemption from military service.

Address: Al Nozha, Cairo.

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Education:

-PhD in Computers and Information, Faculty of Computers and Artificial Intelligence- Helwan University, November 2021.

-PhD Thesis entitled "Securing Clinical and Genomic Data Using Steganography", 2021.

- Master of Science in Computers and Information, Faculty of Computers and Artificial Intelligence- Helwan University, March 2017.

- Master Thesis entitled "Use of Data Mining Techniques for Prediction of Response of Chronic HCV genotype 4 patients to DAAs", 2017.

- Postgraduate Diploma in Biomedical Informatics (Information Systems Dept.) from Faculty of Computers and Artificial Intelligence- Helwan University, 2014. Grade: Excellent (GPA 3.72/4).

- Bachelor of Information Systems from Future Academy 2012. General Grade: Excellent.

Publications:

- "Response Prediction for Chronic HCV Genotype 4 Patients to DAAs," International Journal of Advanced Computer Science and Applications, Vol. 7, No. 12, pp. 173-178, December, 2016. (http://dx.doi.org/10.14569/IJACSA.2016.071223)

- "A Systematic Literature Review of DNA-based Steganography Techniques: Research Trends, Data Sets, Methods and Frameworks", Digital Transformation Technology. Lecture Notes in Networks and Systems, vol 224. Springer, Singapore. https://doi.org/10.1007/978-981-16-2275-5_31.

- "H3ABioNet genomic medicine and microbiome data portals hackathon proceedings", Database, Volume 2021, 2021, baab016, https://doi.org/10.1093/database/baab016
- "A Hybrid Approach for Protecting Clinical and Genomic Data Using Lossless Stego-DNA Compression". In: Silhavy R., Silhavy P., Prokopova Z. (eds) Software Engineering Application in Informatics. CoMeSySo 2021. Lecture Notes in Networks and Systems, vol 232. Springer, Cham. https://doi.org/10.1007/978-3-030-90318-3_48
- "African Genomic Medicine Portal: a Web Portal for biomedical applications", Systems Medicine and Bioinformatics, J Pers Med. 2022 Feb 11;12(2):265. doi: 10.3390/jpm12020265. PMID: 35207753; PMCID: PMC8879570."

Conferences:

- H3ABioNet Egypt node Team Leader. (Health Informatics and Training Work Packages).
- Speaker at the 1st Bioinformatics Conference "Diversity of Bioinformatics Careers Conference" – Institute of Biotechnology for Postgraduate Studies & Research – Suez Canal University (October 2019).
- Speaker at the 2nd Arab Association of Genetic Research Conference "Genetic Research in Arab World from Lab to Clinical Application" – Federation of Arab Scientific Research Councils – Nile Ritz Carlton Hotel, Cairo (November 2019).
- Workshop Lecturer entitled "Gene expression analysis with RNA-Seq data" in the 12th Breast-Gynecological& Immunooncology International Cancer Conference – Faculty of Medicine Ain Shams Research Institute (January 2020).
- Workshop Lecturer entitled "NGS and RNA-Seq Analysis" in the 10th International Gastrointestinal, Liver& Uro-Oncology Conference – JW Marrior Hotel Cairo (July 2021).
- Speaker at the 5th Computational Methods in Systems and Software 2021, October 13, 2021 - October 15, 2021.
- Speaker in the 14th Breast-Gynecological& Immunooncology International Cancer Conference – Faculty of Medicine Ain Shams Research Institute (January 2022).

International Hackathon:

- Technical team member for developing the African Precision Medicine Portal, H3ABioNet Tunis Hackathon, Institute Pasteur of Tunis (Tunis, April 2019).

H3Africa Fellowship:

- Ranked from the top 15 Abstracts all over the world in **The Human Heredity and Health in Africa (H3Africa)** and number 5 in the H3ABioNet (H3A Bioinformatics network) ranking in H3Africa 10th Consortium Meeting (May 2017).
- Travel Fellowship Grant to H3Africa the 12th Consortium Conference in Kigali, Rwanda (Poster Presentation) (August 2018).
- Oral Presenter in the Young Investigators Forum of the **Global Genomic Medicine Collaborative Conference**, Cape Town, South Africa (November 2018).

H3ABioNet Accreditation:

- **Ambassador of H3ABioNet Egypt Node.**
- **Accredited Bioinformatics Trainer from H3ABioNet.**
- **RNA Sequence Analyst.**

Computer Skills:

- **Microsoft Office** Package on Advanced Level.
- **Data Analysis with R programming.**
- **Structured Programming (VB 6.0 & VB.Net)**
- **Object Oriented Programming (C# - Python)**
- **Databases Developer (SQL Server – ORACLE – MS Access)**
- **Java SE/EE Programming.**
- **Web Design (HTML-CSS-CSS3-Bootstrap-JavaScript-Angular).**
- **Web Programming (ASP.NET MVC - Django)**
- **Web APIs**
- **Data Mining and Big Data Analysis.**
- **Machine Learning**
- **NGS Data Analysis.**

Languages:

Arabic: Mother Language.

English: Good Command of written and spoken.

Training Courses:

- MOS (Microsoft Office Specialist) on MS Access Certification
- Java SE/EE Programming
- English Language (American University in Cairo)
- OOP Diploma (C#-SqlServer-ADO.Net)
- MCSA.net Web Applications diploma (HTML, CSS, CSS3, Bootstrap, JavaScript, JQuery, SQL Server, MVC, ADO.Net, Entity Framework, ASP.net Core).
- (2018) BTU-Module1. (What Bioinformatics can do for you?) the Bioinformatics Training Unit (BTU), Faculty of Agriculture Zagazig University. 10th March, 2018.
- (2018) BTU-Module2. (Manipulation of Biological Sequences (PCR and Primer Design) the Bioinformatics Training Unit (BTU), Faculty of Agriculture Zagazig University. 17th March, 2018.
- (2018) BTU-Module3. (Different PCR techniques and sequence analysis) the Bioinformatics Training Unit (BTU), Faculty of Agriculture Zagazig University. 24th March, 2018.
- (2018) BTU-Module4. (Applications of DNA sequence analysis (Global Alignments) the Bioinformatics Training Unit (BTU), Faculty of Agriculture Zagazig University. 31th March, 2018.
- (2018) BTU-Module5. (DNA sequence analysis II) the Bioinformatics Training Unit (BTU), Faculty of Agriculture Zagazig University.21th April, 2018.
- Online Certificate in Whole genome sequencing of bacterial genomes - tools and applications from Technical University of Denmark on Coursera.com.
- Soft Skills & Communication Skills
- Applications of Machine Learning in Bioinformatics Using R (International Summer School on Bioinformatics – Nile University, October 2019)

Work Experience:

- Assistant Professor in Computer Science Department (The Higher Future Institute for Specialized Technological Studies) (2021 to recent).
- Teaching Assistant in Management Information Systems and Computer Science Department (The Higher Future Institute for Specialized Technological Studies) (2012 to 2021).
- Teaching Assistant in Faculty of Engineering- Ain Shams University (2019-2020).
- Trainer of the Summer Training for FCAI – Cairo University Students (2019-2020)
- Trainer of the Summer Training for FCAI – Cairo University Students (2020-2021)
- Trainer of the Summer Training for FCIS – Zagazig University Students (2020-2021)
- A member of the exams correcting and control committee (2012 to Recent).
- Bioinformatics Trainer in BTU-Zagazig University (2017 to Recent).
- Web Developer at Global Solutions (2017-2018).
- Instructor at the International Bioinformatics "Training Introduction to Bioinformatics Training-2018", (2018).
- Instructor at the International Bioinformatics Training "Introduction to Bioinformatics Training-2019", (2019).
- Instructor at the International Bioinformatics Training "Intermediate Bioinformatics Traning-2019", (2019).
- Graduation Project Supervisor assistant in Faculty of Computers and Information- Zagazig University (2019-2020).
- Instructor at the International Bioinformatics Training "Introduction to Bioinformatics Training-2020", (2020).
- Instructor at the International Bioinformatics Training "Intermediate Bioinformatics Traning-2020", (2020).
- Instructor at the International Bioinformatics Training "Introduction to Bioinformatics Training-2021", (2021).
- Instructor at the International Bioinformatics Training "Intermediate Bioinformatics Traning-2021", (2021).
- Instructor at the International Bioinformatics Training "Next Generation Sequencing-2021", (2021).
- Software Project Manager at Injaz Apps (2021).

Taught Courses:

- **Structure Programming (VB 6.0 & VB.Net)**
- **Object Oriented Programming (C#)**
- **Introduction to Computers.**
- **Introduction to Operating Systems**
- **Databases (1) (MS Access & SQL Server)**
- **Advanced Databases (ORACLE "SQL-Pl/SQL-Forms-Reports")**
- **Data Structure**
- **Algrorithms**
- **Web Design (HTML-CSS-CSS3-Bootstrap-JavaScript-JQuery-Ajax).**
- **Web Programming (ASP.NET & MVC)**
- **Design Patterns**
- **System Analysis and Design (Visual Paradigm & Visio)**
- **Management Information Systems**
- **Decision Support Systems (Goal Seek, Solver, Trend and Linear Programming)**
- **Office Application Packages (Microsoft office package)**
- **Data Mining (WEKA)**
- **Data Structure and Algorithms**
- **Information Security**
- **Introduction to Bioinformatics.**
- **Intermediate Bioinformatics Training (Linux, R, 16S RNA Analysis)**
- **Applications of DNA/RNA sequence analysis.**
- **Machine Learning and its Applications**

Technical Projects:

- **Desktop App:**
  - **Full Desktop Applications for Trading Stores using VB 6.0**
  - **Desktop Apps with VB.Net , C# , SqlSerever**

    (Ex: Pharmacies – Markets – Hospitals – Trading Stores - ....)
  - **DNA Alignment with Python.**

- **Web Application:**
  - **Credit Hours Course Registration System**
  - **Student Affairs Registration System**

- Web Crawling (Webpages Ranking)
- ASP MVC Core API with Angular 8
- ERP System with ASP .NET Core

- **Bioinformatics:**
  - **Full RNA-Seq Analysis Pipeline in both OS (Windows & Linux using bash scripts, python, R, Bioinformatics analysis tools).**
  - **16s RNA Analysis Pipelines.**