

AHMED ISMAIL

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EXPERTISE AND TECHNICAL SKILLS:

- **Bioinformatics Tools:**
 - o Bioinformatics algorithms, databases and analyses with a focus on Microarray and next-generation sequencing data analysis. Develop procedures to add a value to data generated by genome sequencing projects through assembly, annotation, and quality assurance. Integrate and analyze data in genome sequencing projects and functional genomics analysis. Organize genomic data into databases, displays, or graphic presentations for publication and web presentation and present the data at scientific meetings.
- **Database Software:**
 - o **Structure Query Language (SQL):**
Manage, support and administer SQL Server database. Write SQL queries to administer and support SQL database operation and maintenance. Help developers to fix SQL queries for better performance. Write a SQL queries to run adhoc reports for the end users as required. Use SQL queries to link multiple tables using all kind of joints: inner joint, outer joints, union, etc.
 - o **Oracle Database:**
Manage, support, and administer the Oracle database. Build reports (adhoc or fixed) as needed. Develop and support existing codes. Implement a dataflow diagram for the business. Build forms to interact with Oracle database as needed.
- **Programming Language:** C++, Python, Perl Language, SQL, PL/SQL.
- **Web Design Tools:**
 - o Java-based web environments. Microsoft Windows Server/IIS, ASP.Net, HTML5/CSS3, MS. Expression Web, and Visual Studio 2008/2010 sites. Static sites (HTML/CSS/JavaScript/jQuery)
- **Communication skills:** a very good listener, verbal and nonverbal communication skills, Friendly, Confident, and Open-Minded.

EDUCATION:

- Towson University, Towson, Maryland, USA Graduation: Aug 2013 o
Degree: Doctor of Science in Information Technology (Bioinformatics)
- Towson University, Towson, Maryland, USA Graduation: May 2009 o
Degree: Master of Science in Applied Information Technology (DBMS)
- Towson University, Towson, Maryland, USA Graduation: May 2009 o
Degree: Post Baccalaureate Certificate in Database Management Systems (DBMS)
- Azhar University, Cairo, Egypt Graduation: May 2002 o Degree:
Bachelor of Science in Biotechnology

WORK EXPERIENCE:

Majmaah University, College of Applied Medical Sciences, Riyadh, KSA

- Assistant Professor (Public Health and Health Informatics) February 2019 to Present

Azhar University, Cairo, Egypt

- Assistant Professor of Biotechnology and Bioinformatics July 2015 to January 2018

- o BITC 210: Epigenetic
DNA microarrays analysis is used to detect DNA or RNA that may or may not be translated into proteins.
Expression analysis and expression profiling.

- Member of Quality Assurance committee at Al-Azhar University
- Member of Office of Excellency at Al-Azhar University

Towson University, Towson, Maryland

- Lecturer of Computer and information science September 2013 to June 2015

Responsibilities:

- o delivering lectures, seminars and tutorials; o developing and implementing new methods of teaching to reflect changes in research; o designing, preparing and developing teaching materials; o assessing students' coursework; o setting and marking examinations;
- o supporting students through a pastoral/advisory role; o undertaking personal research projects and actively contributing to the institution's research profile; o writing up research and preparing it for publication; o supervising students' research activities;
- Courses list
 - o MBBB 301: Introduction to Bioinformatics
Teach fundamental principles of bioinformatics, including searching genomic and protein databases, sequence alignment, multiple sequence alignment, protein structural analysis, graphical tools for studying protein structures, RNA databases and RNA structure prediction, functional genomics, including analysis of DNA microarrays.
 - o MBBB 501: Advanced Bioinformatics
Teach advanced topics in bioinformatics including the use of computational tools in simulation, animation, modeling and visualization of biological data. Use of techniques such as statistical analysis, data mining, databases, and data warehousing are covered.
 - o COSC 175: General Computer Science
Teach introduction to structured programming logic. Students learn to analyze problems; define data using simple and structured data types; and create algorithmic solutions using basic control structures and functions.
 - o ITEC 231 Fundamentals of Web Technologies
Teach introduction to web systems and technologies, including the fundamentals of design, implementation and evaluation of web-based applications including related software, databases, interface and digital media. Social, ethical and security issues related to web-based systems are also explored.
 - o ITEC 201 – Metropolitan Information Technology Infrastructure (In-class & Online Class)
"Course Developer"
Teach technological aspects that drive the Greater Baltimore area and its surroundings by placing them in a social and economic context. Students will be able to evaluate how these technologies affect our metropolitan area's status and development by comparing our systems to the ones of other cities. Core Category10: Metropolitan Perspectives.
 - o COSC 109: Computer & Creativity
Teach activities involving symbolic manipulation and computer graphics, animation, dynamic storytelling, computer music, visual effects, Web publishing, computer games, artwork and multimedia.
 - o COSC 111: Information and Technology for Business
Retrieve, process, classify, sort and evaluate data and information. Problem-solving techniques, creative thinking skills, communication skills, team building and professional ethics. Laboratories are covering the Internet, spreadsheets and databases.
- Adjunct Faculty (Towson University, Maryland, USA) September 2011 to May 2013
- Computer Science Lab Assistant (Towson University, Maryland, USA) September 2008 to August 2011

- Research Assistant (Towson University, Maryland, USA) September 2008 to January 2010
- Teaching assistant (Azhar University - Cairo, Egypt) May 2003 to September 2007

CONFERENCES & PUBLICATIONS:

- Bioinformatics tools and analysis to identify lethal genes in Root Knot Nematode. In Vitro Biology Meeting 2011, Raleigh, North Carolina, USA (International Conference)
- Comparative genomics analysis to identify lethal genes in RKN (*Meloidogyne* spp.) from *C. elegans*. 28th Mid-Atlantic Plant Molecular Biology Society Conference 2012, Laurel, MD, USA (International Conference)
- A. Ismail, Benjamin F. Matthews, Nadim W. Alkharouf (2012). RKN Lethal DB: A database for the identification of Root Knot Nematode (*Meloidogyne* spp) candidate lethal genes. *Bioinformation*; 8(19): 950-952 PMID:23144556 [PubMed] PMCID: PMC3488838
- A Awaad, M Tohamy, A El-Refy, F El-Feky, A. Ismail (2016). Identification of *Bifidobacterium Animalis* Ssp. *Lactis* from Egyptian Women Breast Milk and Feces of Breast Fed Infant Based On 16S-23S rRNA Gene. *Advances in Nutrition & Food Science* 2016; 1 (1)
- E. Heb El-din, F. El-Feky, A. El-Refy, A. Ismail, K. Mosa (2017). Molecular characterization of two AP2/ERF transcription factor genes from Egyptian tomato cultivar (Edkawy). *Plant Science Today*; 4 (1): 12-20
- Isolation and identification of MSTN gene in three Egyptian goat breeds. 14th National Conference of Advances in Biochemistry and Molecular Biology in Diagnosis and Treatment 2017, MSA University, Cairo, Egypt.
- Salinity Stress Responses in Some Grape Rootstock. 4th International Conference on Biotechnology Applications in Agriculture (ICBAA), Benha University, Hurghada 2018, Egypt.

BOOKS:

- Mosa, Kareem A., Ismail, Ahmed, Helmy, Mohamed (2017). *Plant Stress Tolerance: An Integrated Omics Approaches* (1st ed). Springer International Publishing. ISBN: 978-3-319-59377-7

GRANT PROPOSALS:

- Successful student grant proposal titled "Bioelectricity production from wastewater microorganisms"
Role: Supervisor Amount: 10,000 EGP

AWARDS:

- Towson University (MD, USA)
 - Graduate Student Association Award (\$500) May 2011