# Safa Shubbar

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#### EDUCATION

Kent State University

Kent, OH

Ph.D. in Computer Science, Advisor: Qiang Guan

2017-Current

Kent State University

Kent, OH

M.S. in Computer Science, GPA: 4.00/4.00

2014-2017

- Thesis: "Ultrasound Medical Imaging Systems Using Telemedicine and Blockchain"

University of Al-Qadissyah

Iraq

B.S. in Computer Science, GPA: 3.7/4.00

2005-2009

# Research Interests

- Conducting scientific research on Big Data Analytics in Bioinformatics with Dr. Qiang Guan (PhD. Program), Kent State University 2018 Current
- Research on Data Science, Machine learning and Deep learning with Dr. Qiang Guan (PhD. Program), Kent State University 2019 - Current
- Research on Telemedicine, Machine learning, image processing, and Blockchain with Dr. Austin Melton (Master Program), Kent State University 2016 - 2017

### EXPERIENCE

#### Kent State University

Kent, OH

Researcher at Guans Lab

2017- Current

- Big Data Analytics in Bioinformatics
- My research area includes Big data analytics in computational biology and bioinformatics which refers to an array of operations including biological pattern discovery, classification, prediction, inference, clustering as well as data mining in the cloud, among others.

#### Kent State University

Kent, OH

Teaching Assistance and Grader

2015 - current

- Teaching Assistance and Grader
- Machine Learning, Data Structures, Database System Design, Program and Problem Solving, Software Development Project/Capstone Project

Drips Akron, OH

Conversational Outreach Platform

Summer 2020

- Data analytics, Problem planning/solving
- Domain Automation project
- Project involved implementing ML techniques platform to perform successful delivery of URL-based SMS messaging through extensive testing of campaign scripting across multiple phone carriers
- Eliminates the need for simple, repetitive testing.
- Free up to 100 labor hours per week.

#### Programmer

University of Al-Qadissyah/ Iraq

2009-2013

- IT and software development
- Over 5 years I was in charge of supporting and managing software of more than 5 different departments.
- Web Designing
- Developed and design website in Java, HTML, and CSS

# SELECTED PROJECTS AND PUBLICATIONS

- [1] S. Shubbar, C. Fu, Z. Liu, A. Wynshaw-Boris, and Q. Guan, "Phgc: A machine learning based workflow for phenotype-genotype co-analysis on autism", in *Proceedings of the 12th International Conference*, vol. 70, 2020, pp. 49–58.
- [2] S. Shubbar, "Ultrasound medical imaging systems using telemedicine and blockchain for remote monitoring of responses to neoadjuvant chemotherapy in women's breast cancer: Concept and implementation", *Electronic Thesis or Dissertation, OhioLink*, 2017.
- [3] Machine Learning Based Workflow for Phenotype Co-analysis on Age Related Hearing Loss
- [4] Analyzing the NYC Citi Bike and Bay Area Bike Share's trip data system
- [5] Trajectory Analytics: Contribute to a web-based software analytic tools for urban data and develop visual analytics over the trajectory data
- [6] Nuclei and Nucleoli Segmentation and Classification
- [7] Poly-Glot Language Learning/Frozen Squirrels:
  - Delivers an online language learning tool designed to enable native English speakers with the ability to learn a new language.
- [8] Probabilistic Reverse Group Nearest Neighbor Query over Spatial-Social Network.

# Prof. Activities

- Graduate Student Senator Representing the Department of Computer Science/KSU
- Judge for HACKSU Kent HackEnough 2020 and 2021
- ACM Chapter Officer
- Student Worker at the Office of Global Education, Kent State University
- External conference reviewer for Women in Data Science (WiDS) conference 2021

# SKILLS

 Python (General Programming and ML Pytorch/ Tensorflow), C, C++, R, Java, XML, HTML, JavaScript and JQuery, MySQL, NoSQL(MongoDB), Designing database structures and tables Optimizing SQL queries to integrate with applications, Developing functions, views, and stored procedures, Creating database automation, Hadoop, Spark

#### LANGUAGES

• English: Full Professional

• Arabic: Native

# TRAINING AND CERTIFICATION

- Human Vulnerability Workshop; Sandia National Laboratories, 2020 Feb 14-16; Miami, Florida
- 5th Intro Training for Iraqi Students Studying the United States; Sandia National Laboratories; 2019 July 16-18; Boston, Massachusetts