Safa Shubbar

*"Being the richest man in the cemetery doesn't matter to me.
Going to bed at night saying we've done something wonderful...
that's what matters to me." - Steve Jobs*

Personal Information

Gender Female
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Education

2017–Present **PhD, Computer Science,** *Kent State University,* Kent, OH
Advisor: Dr. Qiang Guan

2014–2017 **MS, Computer Science,** *Kent State University* , Kent, OH.
Advisor: Dr. Austin Melton
GPA: 4.0/4.0

2005–2009 **BS, Computer Science,** *Alqadyssia University,* Iraq.
GPA: 3.627/4.0

Research Experience

2018

o **Extracting Research-quality Phenotypes from OpenSNP Data to Support Biomedical Research ,** *A new era of individualized medicine is evolving where novel biomedical discoveries are leading to more effective prevention, treatment, and diagnosis of disease. Although altered phenotypes are one of the most reliable manifestations of altered gene functions, research in extracting, representing, and analyzing phenotype-genotype relationships is still evolving. This project provide tools and resources for investigators, researchers and their informatics support staff to implement and execute the algorithms on OpenSNP data.*

o **Data Science Workflows using Docker Containers.**

o **Analyzing the NYC Citi Bike system.**

2016–2017	**Ultrasound Medical Imaging Systems Using Telemedicine and Blockchain for Remote Monitoring of Responses to Neoadjuvant Chemotherapy in Women's Breast Cancer: Concept and Implementation, (Thesis),** *In this research, we use a breast ultrasound imaging technique to monitor the response of breast cancer patients who receive neoadjuvant chemotherapy (the systemic therapy of breast cancer before surgical therapy), as well as detecting new tumors which may arise during treatment. In this technique, the Support Vector Machine (SVM) algorithm is used for image classification, and the regionprops tool in Matlab is used for calculating the tumor size. SVM is a supervised learning method that is used for classification and regression predictive problems. In this work, SVM is considered as a binary classifier by which the abnormalities in the breast tissues can be distinguished, and then it can be determined whether these abnormalities are cancerous or not. To establish remote healthcare to monitor cancerous tumors treatments, telecommunication infrastructure through primarily Teleradiology and blockchain technology along with smart contract will be used. Blockchain technology is deemed as one of the main components of Bitcoin cryptocurrency.*
2014–2016	

- **Poly-Glot (Language Learning) Frozen Squirrels.**
- **Silhouette analysis of patient in the emergency room using image Analysis Techniques and Kinect.**
- **Bay Area Bike Share's trip data.**
- **Nuclei and Nucleoli Segmentation and Classification.**
- **Face Recognition and Face Detection Robot.**

Working Experience

2009–2011	**Part-Time Developer,** *Al-Qadissyah University/ Computer Science Department,* Iraq.
2011–2013	**Analyst,** *Dean's office, Section of Promotions, College of Engineering, Al- Qadisiya University,* Iraq.
2014-2016	**Student Worker,** *Office of Global Education, Kent State University,* Kent, OH, USA. Working as a student worker. Detail:

- Helped students with their applications, scholarships and other issues.
- Assisted the office on the orientation of the new students.

Honors

2017/Present	**Department of Computer Science, Kent State University PhD Scholarship.**
2013/2016	**The Higher Committee for Education Development in Iraq (HCED) Academic Scholarship.**
2015	**Certificate of Achievement ,** *Certificate of Achievement Award, Robot Parade, Kent state university.*

Skills & Background Knowledge

Computer skills

Intermediate	Hadoop, Knowledge in Agile development environment (Scrum), Spark, LATEX, Linux
Advanced	Microsoft Office, html,SQL,Python, C/C++

Communication skills

Have a good ability in ideas presentation/explanation.

Very good team-work skills.

Friendly, sociable.

Ability to bear under high pressure of tasks.

Teaching Experience

2017–Present **Teaching Assistant,** *Department of Computer science, Kent State University.*
- o CS I Program/Problem Solving.
- o CS II Data Structures.

2015–2016 **Teaching Assistant (Grader),** *Department of Computer science, Kent State University.*
- o Machine Learning course.
- o Introduction to Database System Design.

Languages

Arabic **Mothertongue**

English **Fluent**   *Fluent in communicative and academic aspect*
                                            TOEFL IBT: 86/120 (2014)

Interests

- Music & Cooking   - Photograph
- Science Related Documentaries   - Social Activities

Publications

Conference Publications

Fadhil, M., Shubbar, S. (2017). Optimization Clustering Protocols for Fast Information Propagation in The Bitcoin Peer-to-Peer Network, with the aim of improving the consistency of the blockchain, Under review in at the 17th IEEE International Symposium on Network Computing and Applications (NCA 2018), 1-3 November 2018 Cambridge, MA USA.

Masters Thesis

Shubbar, S. (2017). 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). Retrieved from https://etd.ohiolink.edu/