

# Kwame Omono Asamoah

Ph.D.] Big Data Security, Blockchain Technology and Deep Learning with Computer Vision

Date of Birth: 01-05-1990

Gender: Male

Marital Status: Married

Nationality: Ghanaian

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Github: <https://github.com/koasamoah>

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## Employment History

Jul 2022 – Present . . . .

■ **Postdoctoral Fellow**, Zhejiang Normal University, Jinhua - China

- Analyse, interpret and document research findings for review.
- Compare actual and expected results and suggest solutions to correct the deviations.
- Assist in the preparation of proposals and reports.
- Meeting students individually to discuss research progress.

Sep 2015 – Aug 2016

■ **IT Officer/Operations Manager**, Asantehene Part 1 Lands Secretariat, Manhyia Palace, Kumasi - Ghana.

- In charge of the computer systems.
- Process land documents at Lands Commission.
- Meet with customers and report their concerns to the CEO.

Sep 2014 – Aug 2015

■ **Assistant IT Officer** Lands Commission, Kumasi - Ghana.

- In charge of the computer systems.
- Assist in the processing of land documents.

Jun 2014 – Aug 2014

■ **Assistant customer service officer** : Ecobank Ghana Limited, Ash-town East Brach, Kumasi - Ghana (Internship).

- Assist in the opening of bank accounts for customers.
- Data entry (entering information of all opened accounts into the company's system).

## Education

Sep 2018 – Jun 2022

■ **Ph.D. in Computer Science and Technology**

University of Electronic Science and Technology of China (UESTC), Chengdu - China.

Advisor: Dr. Qi Xia (Professor).

Thesis title: *Blockchain-Based Architecture for Energy Sector in Smart Cities.*

## Education (continued)

Sep 2016 – Jun 2018

■ **M.Sc. Computer Science and Technology**

University of Electronic Science and Technology of China (UESTC), Chengdu - China.

Advisor: Dr. Qi Xia (Professor).

Thesis title: *GridMonitoring: Secured Sovereign Blockchain Based Monitoring on Smart Grid*.

Oct 2010 – Jun 2014

■ **B.Sc. Computer Science and Technology**


Kwame Nkrumah University of Science and Technology (KNUST), Kumasi - Ghana

Advisor: Dr. James Ben Hayfron-Acquah.



## Research Publications

### Journal Articles

- 1 Kwame Omono Asamoah, Adjei Peter Darko, Collins Opoku Antwi, Seth Larweh Kodjiku, Esther Stacy E. B. Aggrey, Qing Wang, and Jia Zhu. "A Blockchain-Based Crowdsourcing Loan Platform for Funding Higher Education in Developing Countries". In: *IEEE Access* 11 (2023), pp. 24162–24174. DOI: 10.1109/ACCESS.2023.3252917.
- 2 Kwame Omono Asamoah, Hu Xia, Sandro Amofa, Obiri Isaac Amankona, Kecheng Luo, Qi Xia, Jianbin Gao, Xiaojiang Du, and Mohsen Guizani. "Zero-Chain: A Blockchain-Based Identity for Digital City Operating System". In: *IEEE Internet of Things Journal* 7.10 (2020), pp. 10336–10346. DOI: 10.1109/JIOT.2020.2986367.
- 3 Adjei Peter Darko, Collins Opoku Antwi, Kwame Omono Asamoah, Evans Opoku-Mensah, and Jun Ren. "A probabilistic reliable linguistic PROBID method for selecting electronic mental health platforms considering users' bounded rationality". In: *Engineering Applications of Artificial Intelligence* 125 (2023), p. 106716. ISSN: 0952-1976. DOI: <https://doi.org/10.1016/j.engappai.2023.106716>.
- 4 Jianbin Gao, Kwame Omono Asamoah, Emmanuel Boateng Sifah, Abba Smahi, Qi Xia, Hu Xia, Xiaosong Zhang, and Guishan Dong. "GridMonitoring: Secured Sovereign Blockchain Based Monitoring on Smart Grid". In: *IEEE Access* 6 (2018), pp. 9917–9925. DOI: 10.1109/ACCESS.2018.2806303.
- 5 Jianbin Gao, Kwame Omono Asamoah, Qi Xia, Emmanuel Boateng Sifah, Obiri Isaac Amankona, and Hu Xia. "A Blockchain Peer-to-peer Energy Trading System for Microgrids". In: *IEEE Transactions on Smart Grid* (2023), pp. 1–1. DOI: 10.1109/TSG.2023.3237624.
- 6 Seth Larweh Kodjiku, Yili Fang, Tao Han, Kwame Omono Asamoah, Esther Stacy E. B. Aggrey, Collins Sey, Evans Aidoo, Victor Nonso Ejianya, and Xun Wang. "ExCrowd: A Blockchain Framework for Exploration-Based Crowdsourcing". In: *Applied Sciences* 12.13 (2022). ISSN: 2076-3417. DOI: 10.3390/app12136732.
- 7 Isaac Amankona Obiri, Qi Xia, Hu Xia, Kwame Opuni-Boachie Obour Agyekum, Kwame Omono Asamoah, Emmanuel Boateng Sifah, Xiaosong Zhang, and Jianbin Gao. "A fully secure kp-abe scheme on prime-order bilinear groups through selective techniques". In: *Security and Communication Networks* 2020 (2020), pp. 1–18.
- 8 Qing Wang, Jia Zhu, Hongji Shu, Kwame Omono Asamoah, Jianyang Shi, and Cong Zhou. "GUDN: A novel guide network with label reinforcement strategy for extreme multi-label text classification". In: *Journal of King Saud University - Computer and Information Sciences* 35.4 (2023), pp. 161–171. ISSN: 1319-1578. DOI: <https://doi.org/10.1016/j.jksuci.2023.03.009>.
- 9 Qi Xia, Isaac Amankona Obiri, Jianbin Gao, Hu Xia, Xiaosong Zhang, Kwame Omono Asamoah, and Sandro Amofa. "PRIDN: A Privacy preserving Data Sharing on Named Data Networking". In: *IEEE Transactions on Information Forensics and Security* (2023).

- 10 Qi Xia, Emmanuel Boateng Sifah, Kwame Omono Asamoah, Jianbin Gao, Xiaojiang Du, and Mohsen Guizani. "MeDShare: Trust-Less Medical Data Sharing Among Cloud Service Providers via Blockchain". In: *IEEE Access* 5 (2017), pp. 14757–14767.  DOI: 10.1109/ACCESS.2017.2730843.






## Conference Proceedings

- 1 Esther Stacy E. B. Aggrey, Qin Zhen, Seth Larweh Kodjiku, Kwame O. Asamoah, Obed Barnes, Linda Delali Fiasam, Evan Aidoo, and Henrietta Aggrey. "Detection of Melanoma Skin Cancer Using Capsule Network and Multi-Task Learning Framework". In: *2022 19th International Computer Conference on Wavelet Active Media Technology and Information Processing (ICCWAMTIP)*. 2022, pp. 1–5.  DOI: 10.1109/ICCWAMTIP56608.2022.10016588.
- 2 Siwei Miao, Xiao Zhang, Kwame Omono Asamoah, Jianbin Gao, and Xia Qi. "E-Chain: Blockchain-Based Energy Market for Smart Cities". In: *The 10th International Conference on Computer Engineering and Networks*. Springer. 2021, pp. 1542–1549.
- 3 Asamoah Kwame Omono, Yu Wang, Qi Xia, and Jianbin Gao. "Implicit Certificate Based Signcryption for a Secure Data Sharing in Clouds". In: *2021 18th International Computer Conference on Wavelet Active Media Technology and Information Processing (ICCWAMTIP)*. 2021, pp. 479–484.  DOI: 10.1109/ICCWAMTIP53232.2021.9674100.

## Books and Chapters



- 1 Jianbin Gao, Qi Xia, Kwame Omono Asamoah, and Bonsu Adjei-Arthur. *Smart Cities: Blockchain-Based Systems, Networks, and Data*. CRC Press, 2022.
- 2 Qi Xia, Jianbin Gao, Isaac Amankona Obiri, Kwame Omono Asamoah, and Daniel Adu Worae. *Attribute-based Encryption (ABE): Foundations and Applications within Blockchain and Cloud Environments*. John Wiley & Sons, 2023.

## Skills


Languages	 English, Chinese (Intermediate)
Coding	 Python, Java, C++.
Databases	 MySQL, Tableau.
Web Dev	 HTML, Css, JavaScript/React.
Misc.	 Excellent research abilities, strong communication and interpersonal skills, in-depth knowledge of network and data security, mobile communication networks, IoT, and blockchain technologies.

## Achievements

### Awards



- 2017  UESTC Academic Excellence Awards (Third Prize).
-  Most Active Member, Tribal Fusion International Dance Team (UESTC).

### Certifications

- 2022  Visual Analytics with Tableau. Awarded by the University of California, Davis and offered through Coursera.

## Achievements (continued)

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- 2023    Fundamentals of Visualization with Tableau. Awarded by the University of California, Davis and offered through Coursera.
-  Neural Networks and Deep Learning. Awarded by DeepLearning.AI and offered through Coursera.

## References

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Available on Request