

Tarek Awwad

Computer Scientist

📍 20 Avenue Albert Einstein - 69100 Villeurbanne - France

☎ +33 6 95 95 27 39 ✉ tarek.awwad.36@gmail.com

🌐 <https://tarekawwad.com>

WORK EXPERIENCE

- 2018–present **Chief Blockchain Architect**
Ki Foundation
Keywords Blockchain, consensus protocol, distributed systems, project management
- 2017–2018 **Research and Teaching Assistant** ATER
IUT - University of Lyon 1
- 2014–2018 **PhD student - Computer science** Joint Ph.D thesis
Quality control in crowdsourcing systems
INSA Lyon – France and University of Passau – Germany
Keywords Crowdsourcing, machine learning, data mining, quality control, clustering, Python, Java
- 2014 **Engineering intern - Computer vision** 6 months
Commissariat à l'Énergie Atomique CEA/LIST/LVIC - Saclay - France
Keywords SLAM, augmented reality, camera calibration, projective geometry, C++, Ogre3D
- 2013 **Developer intern - Collaborative systems** 4 months
University of Milano, Lab. SESAR - Crema - Italy
Keywords Liferay, Java, SQL
- 2013 **Developer intern - Web-based virtual visits** 4 months
Antonin university, TICKET lab - Baabda - Lebanon
Keywords Multimedia databases, PHP, virtual visits

EDUCATION

- 2012–2014 **Engineering diploma – Computer science and electronics** Top of my class
ESIREM - Dijon - France
Keywords Network administration, security and quality, software engineering, project management
- 2013–2014 **Master of research – Image processing** Top of my class
University of Burgundy - Dijon - France
Keywords Geometrical modeling, image processing, information systems
- 2009–2014 **Engineering diploma – Telecommunications**
Antonin University - Baabda - Lebanon
Keywords Telecommunications, electronics, software engineering

PUBLICATIONS

- Dissertation 2018 Tarek Awwad, *Context-aware worker selection for efficient quality control in crowdsourcing*, Doctoral dissertation, INSA Lyon - France and Universität Passau - Germany
- CompSac 2017 Tarek Awwad, Nadia Bennani, Konstantin Ziegler, Veronika Rehn-Sonigo, Lionel Brunie and Harald Kosch, *Efficient worker selection through history based learning*, Turin - Italy
- HASE 2016 Tarek Awwad, Nadia Bennani, Lionel Brunie, David Coquil, Harald Kosch and Veronika Rehn-Sonigo, *Task Characterization For An Effective Worker Targeting In Crowdsourcing*, Orlando - USA

LANGUAGES

French (fluent), English (fluent)
Arabic (native), German (B1-level)

INTERESTS

Small robotics, Photography and Sketching

DETAILED TECHNICAL SKILLS

Programming

Python and JAVA (advanced), C++, C#, PL/SQL, PHP, HTML, CSS, UML, Liferay Platform

Libraries Scikit-learn, Gensim, NLTK, Seaborn, Pandas, and other

Network

Administration SNMP, HP OpenView

QoS IntServ, DiffServ, RSVP

Security IPSec, OpenPGP, OpenVPN, OpenSSL, RADIUS, PyCrypto, OpenSWAN

Platforms Cisco Router and switches configuration - CCNA 1,2,3,4

3D & CG

Ogre 3D, 3D modelling, texturing and rendering Cinema4D, 3Dmax, Photoshop, Illustrator

Office and OS

Latex, Microsoft Office, Libre Office, Windows, Linux and Mac OS X

DETAILED EXPERIENCE

2018–present **Chief Blockchain Architect** 6 months

Ki Foundation

Description My work at the Ki Foundation consists in proposing a novel consensus protocol for a privacy preserving Blockchain that serves as a decentralised backbone of an IOT and data sharing and monetizing ecosystem. The proposal tackles multiple points: the consensus mechanism, the reward strategy, the system scalability and the data privacy. Moreover I contribute and lead other activities related to the implementation of technical tools such as the wallet applications, the development network and the explorer.

2014–2018 **PhD - Quality control in crowdsourcing systems** Joint Ph.D thesis

INSA Lyon – France and University of Passau – Germany

Supervisors Prof. Lionel Brunie (Lyon) and Prof. Harald Kosch (Passau)

Co-supervisors Dr. Nadia Bennani and Dr. Veronika Rehn-Sonigo

Abstract In the last decade, crowdsourcing (CS) has emerged as a very promising approach for obtaining services, feedback or data from a large number of people connected through the Internet, in a short time and at a reasonable cost. CS has been used in a large range of contexts, thus proving its versatility. However, the quality of the services or data provided by the workers (the "crowd") is not guaranteed, and therefore must be verified. This verification usually results in additional time and cost. We propose a novel approach of quality control in crowdsourcing that reduces, and in some cases eliminates, this overhead. Our approach uses a learning technique to characterize and cluster tasks, and selects, within the available crowd, the most reliable group of workers for a given type of tasks.

2014 **Engineering intern - Computer vision** 6 months

Commissariat à l'Energie Atomique CEA/LIST/LVIC - Saclay - France

Supervisors Dr. Mohamed Tamaazousti and Dr. Jim Braux Zin

Description The first part of this internship consisted in implementing an Over-Transparent-Display Augmented Reality system for driving assistance. Three component were implemented; a user tracking module, a SLAM based environment real-time scanner and a calibration system with bundle adjustment. The second part of the internship consisted in improving the theoretical part of the calibration algorithm to fulfil the client requirements. A 2D calibration process was proposed instead of the 3D calibration.

- 2014 **Master thesis - Image processing** 4 months
 University of Burgundy lab. Le2i - Dijon - France
 Supervisor Prof. Albert Dipanda
 Description The master thesis focused on pedestrian recognition technique with specific interest to depth images usage
 Keywords Dapth Images, shape recognition, survey
- 2013 **Developer intern – Collaborative systems** 4 months
 University of Milano Lab. SESAR - Crema - Italy
 Supervisor Dr. Paolo Ceravolo
 Description The internship work consisted in designing and implementing a log capturing and storing system for a collaborative work platform base don Liferay.

TEACHING

- Fall 2017 **Process Modelling UML** 44 Hours
 Class Special year (2nd year university level)
 Content Lectures and seminars
- Fall 2017 **Java programming** 30 Hours
 Class License Pro (3rd year university level)
 Content Lectures and lab sessions

SUPERVISION ACTIVITIES

- 2017 **Projet spécifique - 4IF** Visualization tools for performance studies
 Régis Goubin - INSA Lyon
- 2016 **Master thesis** Automatic feedback for quality driven clustering refinement
 Baptiste Marchon - University of Passau
- 2016 **Projet spécifique - 4IF** Implenting speific clustering and data visualization algorithms
 Thomas Favrot - INSA Lyon
- 2015 **State-of-the-art Study - 5IF** Survey on aggregation techniqnes in Crowdsourcing systems
 Baptiste Marchon - INSA Lyon
- 2015 **Projet spécifique - 5IF** Implementing an advanced Crowdsourcing Platform
 Baptiste Marchon - INSA Lyon
- 2015 **Internship** Implementing a basic Crowdsourcing Platform
 Jérémie Bellion-Jourdan - University of Passau

OTHER RESEARCH ACTIVITIES

- July 2018 **Workshop Talk:** CrowdED and CREX: Towards Easy Evaluation In Crowdsourcing
 IRIXYS - Gargnano - Italy
- November 2017 **Doktorandenkolloquium:** Leveraging Task History For An Efficient Worker Selection In Crowdsourcing
 Passau - Germany
- July 2017 **Int' Conf. Talk:** Efficient Worker Selection Through History Based Learning
 CompSAC - Torino - Italy
- July 2017 **Workshop Talk:** Offline Learning For Worker Selection In Crowdsourcing
 IRIXIS - Chiemsee - Germany
- January 2017 **Review:** Reviewing research papers for an international conference
 DEXA 2017
- December 2016 **Workshop Talk:** Offline Learning for Worker Selection in Crowdsourcing
 MDPS - Lyon - France

- June 2016 [Workshop Talk](#): Crowdsourcing Quality Control : A Recommender System Approach
MDPS - Gargnago - Italy
- March 2016 [Poster](#): Task Characterization For An Effective Worker Targeting In Crowdsourcing
IRIXYS launch - Passau - Germany
- January 2016 [Int' Conf. Talk](#): Task Characterization For An Effective Worker Targeting In Crowdsourcing
HASE - Orlando - USA
- December 2015 [Workshop Talk](#): Task Characterization For An Effective Worker Targeting In Crowdsourcing
MDPS - Lyon - France
- June 2015 [Workshop Talk](#): Improving Quality Control In Crowdsourcing Frameworks
MDPS - Passau - Germany
- December 2014 [Workshop Talk](#): Enabling Resilience In Mobile Crowd Computing
MDPS - Besançon - France