

# ZEINA ABU-AISHEH

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## EDUCATION

- PhD Candidate** Oct 2012– May 2016  
LI laboratory, University of Tours (Polytech'Tours), Tours, France
- Master2 in Artificial Intelligence and the Web** Sept 2011– June 2012  
Université Joseph Fourier/ENSIMAG, Grenoble, France
- Master1 of Science in Informatics** Sept 2010– June 2011  
Université Joseph Fourier/ENSIMAG, Grenoble, France
- Bachelor of Engineering** Sept 2003– June 2008  
Computer Engineering  
An-Najah National University, Nablus, Palestine
- General Examination Board in the science field** Sept 2002– June 2003  
Kamal Junblat Secondary School, Nablus, Palestine

## RESEARCH Experience

- Post-Doctoral Fellowship** September 2017 – Until present  
*Title* : Structure-Preserving Graph Signal Processing : Editing of 3D Colored Meshes.  
*Supervised by* : Prof. Olivier Lézoray.  
*Location* : IMAGE team, GREYC laboratory (LI), Caen, France.  
*Used languages and libraries* : C++.
- Post-Doctoral Fellowship** September 2016 – August 2017  
*Title* : Fast Approaches for Graph Classification.  
*Supervised by* : Prof. Jean-Yves Ramel.  
*Location* : RFAI team, Laboratoire d'informatique (LI), Tours, France.  
*Used languages and libraries* : Python, Javascript, Django, Java and R.
- PhD Thesis** Oct 2012 – May 2016  
*Title* : Anytime and Distributed Approaches for Graph Matching.  
*Supervised by* : Prof. Jean-Yves Ramel, Dr. Romain Raveaux and Prof. Patrick Martineau.  
*Location* : RFAI and OC teams, Laboratoire d'informatique (LI), Tours, France.  
*Used languages and libraries* : Java, multi-threading on Java, Hadoop and R.
- Master 2 Research** Oct 2012 – May 2016  
*Title* : Getting Inspired - Towards an Automatic Web Design Gallery.  
*Supervised by* : Prof. Gaelle Calvary, Prof. Gilles Bisson, Prof. Alexandre Demeure and Dimitri

Masson.

*Location* : PRIMA and AMA Groups, Saint Martin d'Herès and Montbonnot, France.

*Used languages and libraries* : C++, OpenCV and R.

### **Master 1 Research**

Feb 2011– July 2011

*Title* : Efficient Parallel Exact Linear Algebra for Discrete Logarithm Problem.

*Supervised by* : Dr. Clement Pernet.

*Location* : LIG-Ensimag, Montbonnot, France.

*Used languages and libraries* : Python, Sage software and LinBox library.

## **BSc GRADUATION PROJECTS**

### **Software Project**

2008

*Title* : Stock Riders.

*Location* : An-Najah National University, Nablus, Palestine.

*Used languages and libraries* : ASP.NET with AJAX, SQL Server 2005, sms web service for sending sms msgs to mobiles.

### **Hardware Project**

2008

*Title* : VGA System.

*Location* : An-Najah National University, Nablus, Palestine.

*Used languages and libraries* : Assembly and the micro-controller : Pic18f458.

## **EMPLOYMENT HISTORY**

### **Teaching Assistant**

Sept 2013 – August 2016

L'Université de Tours (Poly'Tech Tours), Tours, France

### **Lab Assistant**

Sept 2008 – July 2010

An-Najah National University, Nablus, Palestine

### **Designer and Programmer**

Feb 2009 – June 2009

Millennium Technology Company, Nablus, Palestine

### **Value Added Support Engineer**

July 2008 – August 2008

(Palestine Cellular Communications Company- Jawwal), Ramallah, Palestine

## **TEACHING EXPERIENCE**

- **(2008 – 2016 (360 hours))** : C and C++ Programming Languages (lectures and practical courses), Software Testing (lectures and practical courses), Graphs and its applications (lectures and practical courses), Distributed Systems (practical courses), Operating Systems (lectures and practical courses), Networks (practical courses), HTML (lectures and practical courses), Data Analysis (practical courses) and Latex (practical courses).
- **(2013 – 2016)** : Supervision of several graduation projects of bachelor and master students.

## **RESPONSIBILITY IN RESEARCH**

- Reviewer in two international conferences : Graph Storage and Management (GraphSM) : (2016 - until present) and The International Conference on Pattern Recognition Applications and Methods (ICPRAM) : (2017 - until present).
- A contest organiser in an international conference in Pattern Recognition (ICPR 2016) (Cancun, Mexico) : (December, 2016). Contest Name : Graph Distance Contest (GDC) <http://www.icpr2016.org/site/session/graph-distance-contest/>.
- Chair man of 2 sessions in an international conference (ICPRAM2015) - Lisbon, Portugal : (2015)
- Representative of PhD students at the PhD doctoral school, Tours, France : (2013 - 2015)

## TRAINING HISTORY

- International Mobility at the University of Heidelberg, Germany : (Sep, 2014)
- Hartree Summer School. "High Performance Computing", Warrington, UK : (July, 2014)
- Attending Microsoft Workshop at An-Najah National University - Palestine : (Aug, 16, 2009).
- Attending Google Palestinian Day for Entrepreneurs - Palestine :(March, 25, 2009)
- Programming by using Struts framework in java at Hulul Company - Palestine : (July, 2008)
- Computer Maintenance and Network training at PALTEL - Palestine : 2007 (Aug - Sept)
- Web Programming and network training at the Korean-Palestinian Technology Center - Palestine : 2007 (June - July)

## SCIENTIFIC PUBLICATIONS

### Published Journal Papers

- (1) **Zeina Abu-Aisheh**, Romain Raveaux, Jean-Yves Ramel, Patrick Martineau : A parallel graph edit distance algorithm. Expert Systems with Applications. 94 : 41-57 (2018).  
<http://www.sciencedirect.com/science/article/pii/S095741741730725X>.
- (2) **Zeina Abu-Aisheh**, Benoit Gaüzère, Sébastien Bougleux, Jean-Yves Ramel, Luc Brun, Romain Raveaux, Pierre Héroux, Sébastien Adam : Graph edit distance contest : Results and future challenges. Pattern Recognition Letters 100 : 96-103 (2017).  
<https://www.sciencedirect.com/science/article/pii/S0167865517303690>.
- (3) Julien Lerouge, **Zeina Abu-Aisheh**, Romain Raveaux, Pierre Héroux and Sébastien Adam, Graph Edit Distance : A New Binary Linear Programming Formulation. Pattern Recognition 72 : 254-265 (2017).  
<http://www.sciencedirect.com/science/article/pii/S003132031730300X>.
- (4) **Zeina Abu-Aisheh**, Romain Raveaux and Jean Yves Ramel, Anytime graph matching. Pattern Recognition Letters 2016 : (84)215-224.  
<http://www.sciencedirect.com/science/article/pii/S0167865516302690>.

### Submitted Journal Paper

- (1) **Zeina Abu-Aisheh**, Romain Raveaux and Jean Yves Ramel, Efficient k-nearest neighbors search in graph space. Pattern Recognition Letters 2017 : submitted on Octobre 15, 2017.

### Published Conference Papers

- (1) **Zeina Abu-Aisheh**, Romain Raveaux, Jean-Yves Ramel : Fast Nearest Neighbors Search in Graph Space Based on a Branch-and-Bound Strategy. Graph-Based Representations in Pattern Recognition (GbrPR 2017, classe C, IAPR, LNCS, volume 10310) : 197-207.  
[https://link.springer.com/chapter/10.1007/978-3-319-58961-9\\_18](https://link.springer.com/chapter/10.1007/978-3-319-58961-9_18)

- (2) Julien Lerouge, **Zeina Abu-Aisheh**, Romain Raveaux, Pierre Héroux, Sébastien Adam : Exact Graph Edit Distance Computation Using a Binary Linear Program. Structural and Syntactic Pattern Recognition (S+SSPR 2016, classe A, IAPR, LNCS, vol. 8621) : 485-495. [http://link.springer.com/chapter/10.1007/978-3-319-49055-7\\_43](http://link.springer.com/chapter/10.1007/978-3-319-49055-7_43)
- (3) **Zeina Abu-Aisheh**, Romain Raveaux, Jean-Yves Ramel and Patrick Martineau : A Distributed Algorithm for Graph Edit Distance, Large-scale Graph Analysis, Management and Applications 2016. <https://fr.scribd.com/document/319251615/A-Distributed-Algorithm-for-Graph-Edit-Distance-pdf>.
- (4) **Zeina Abu-Aisheh**, Romain Raveaux, Jean-Yves Ramel : A Graph Database Repository and Performance Evaluation Metrics for Graph Edit Distance. Graph-Based Representations in Pattern Recognition (GbrPR 2015, classe C, IAPR, LNCS, volume 9069) : 138-147. [http://link.springer.com/chapter/10.1007/978-3-319-18224-7\\_14](http://link.springer.com/chapter/10.1007/978-3-319-18224-7_14).
- (5) **Zeina Abu-Aisheh**, Romain Raveaux, Jean-Yves Ramel, Patrick Martineau, An exact graph edit distance algorithm for solving pattern recognition problems. International Conference on Pattern Recognition Applications and Methods (ICPRAM 2015, classe A) 271–278. <https://hal-univ-tours.archives-ouvertes.fr/hal-01168816/document>.
- (6) Dimitri Masson, Alexandre Demeure, **Zeina Abu-Aisheh**, Gaelle Calvary, Gilles Bisson : Web design galleries : please give me similar styles : a claim for ground truth datasets. ordic forum for Human-Computer Interaction (NordiCHI 2014) : 357-360.
- (7) National Conference : Gaetan Galisot, **Zeina Abu-Aisheh**, Yunus Kara, Thierry et Jean-Yves Ramel. Méthode de segmentation d'images IRM de cerveaux à l'aide de multi-atlas locaux. ORASIS 2017.

## COMPUTER SKILLS

- **Programming** : Java, C, C++, Python, PHP, ASP.NET, Javascript, Django, Hadoop, Assembly, Matlab and R.
- **Operating Systems** : Windows, MAC and Linux.

## PROFESSIONAL CERTIFICATIONS

- Computer Technician "CompTIA" A+.
- ASP.Net programming language, 70 hours training.
- Innovative Software Engineering training , 320 hours including :
  - Software Engineering management
  - Software tools and methods
  - Software configuration management
  - Software requirements and software quality assurance
  - Software construction and implementation

## LANGUAGE TESTS

- AmidEast English Test, score : 7/8
- DELF B1 in French Language.
- Current French level : C1.

## HONORS

- was awarded a PhD fund, from Région Centre in France, for 3 years (Oct/2012 - Sept/2015).
- was awarded a scholarship from the French Government to study 2 years in France (M1/M2 - 2010/2012).
- was awarded a shield for my BSc graduation project (STOCK RIDERS) (2008).
- was awarded Hani Qaddumi Scholarship for 2 years of my Bachelor study (2004/2005).

## REFERENCES

- Prof. Jean-Yves Ramel, Université François Rabelais de Tours, Mobile : 0674054347, email : [jean-yves.ramel@univ-tours.fr](mailto:jean-yves.ramel@univ-tours.fr)
- Dr. Romain Raveaux, Université François Rabelais de Tours, Mobile : 0666854073, email : [romain.raveaux@univ-tours.fr](mailto:romain.raveaux@univ-tours.fr)
- Prof. Olivier Lézoray, Université de Caen, email : [olivier.lezoray@unicaen.fr](mailto:olivier.lezoray@unicaen.fr)