

## Ali Bou Nassif, Ph.D., P.Eng.

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### **EDUCATION**

The University of Western Ontario, London, Ontario, Canada 09/09 - 05/12

**Ph.D. Degree in Electrical and Computer Engineering (GPA: 96.25%)**

**Thesis Title:** Software size and effort estimation from use case diagrams using regression and soft computing models

The University of Western Ontario, London, Ontario, Canada 09/07 – 08/09

**M.Sc. Degree in Computer Science (Thesis-based, GPA: 91%)**

**Thesis Title:** Measuring Software as a Service (SaaS) Applications Based on Utilized Features

Arts, Sciences and Technology University in Lebanon (AUL), Beirut, Lebanon (formerly known as Business and Computer University College) 10/01 – 02/04

**M.Sc. Degree in Computer Science (Course-work, GPA: 3.69/4)**

Beirut Arab University, Beirut, Lebanon 1992 - 1997

**B.Eng. Degree in Electrical Engineering (5 years of study)**

### **EMPLOYMENT HISTORY**

University of Sharjah, Sharjah, UAE

**Assistant Dean of College of Graduate Studies** 09/18 - Present

- Assistant Dean of Academic Graduate Affairs

**Associate Professor** 06/20 - Present

**Associate Chair of Electrical and Computer Engineering Department** 09/16 – 08/19

**Assistant Professor** 09/15 – 06/20

Department of Computer Engineering

- Preparing course outlines, assignment, labs, projects and delivering lectures for undergraduate and graduate students in Electrical and Computer Engineering (ECE)
- Responsible for marking exams and providing constructive feedback to students
- Conducting research and publish in renowned journals and conferences
- Perform community service tasks

### **Courses Taught /Currently Teaching**

- Summer 2019/2020
  - Introduction to IT lab (English)
  - Introduction to IT lab (Arabic)
- Spring 2019/2020
  - 0402502 *Optimization Methods in Engineering (Graduate Course)*
  - 0403463 *Special Topics in Software and Computer Engineering (Engineering Modeling Using Artificial Intelligence)*

- Fall 2019/2020
  - 0402340 *Engineering Computation and Linear Algebra* (Two Sections)
  - 0402700 *Advanced Statistics* (Graduate Course)
- Summer 2018/2019
  - 0402341 *Multimedia Technology Lab*
  - 0402340 *Engineering Computation and Linear Algebra*
- Spring 2018/2019
  - 0402502 *Optimization Methods in Engineering* (Graduate Course)
- Fall 2018/2019
  - 0402340 *Engineering Computation and Linear Algebra*
  - 0403463 *Special Topics in Software and Computer Engineering (Engineering Modeling Using Artificial Intelligence)*
  - 0402535 *Neural Networks and Applications* (Graduate Course)
- Summer 2017/2018
  - 0402241 *Random Signal Theory*
  - 0402340 *Engineering Computation and Linear Algebra*
- Spring 2017/2018
  - 0402502 *Optimization Methods in Engineering* (Graduate Course)
  - 0402340 *Engineering Computation and Linear Algebra*
  - 0402491/2 *Senior Design Project Coordination*
  - 0403202 *Digital Logic Design Laboratory*
- Fall 2017/2018
  - 0402340 *Engineering Computation and Linear Algebra* (Two Sections)
  - 0402491/2 *Senior Design Project Coordination*
- Summer 2016/2017
  - 0402241 *Random Signal Theory* (Two Sections)
- Spring 2016/2017
  - 0402502 *Optimization Methods in Engineering* (Graduate Course)
  - 0403463 *Special Topics in Software and Computer Engineering (Engineering Modeling Using Artificial Intelligence)*
  - 0402491/2 *Senior Design Project Coordination*
- Fall 2016/2017
  - 0402202 *Circuit Analysis I*
  - 0402340 *Engineering Computation and Linear Algebra*
  - 0402491/2 *Senior Design Project Coordination*
- Summer 2015/2016
  - 0403201 *Digital Logic Design*
  - 0402241 *Random Signal Theory*
- Spring 2015/2016
  - 0402502 *Optimization Methods in Engineering* (Graduate Course)
  - 0403201 *Digital Logic Design*
  - 0402202 *Circuit Analysis I*
- Fall 2015/2016
  - 0402340 *Engineering Computation and Linear Algebra*
  - 0402202 *Circuit Analysis I*
  - 0403460 *Special Topics in CPE (Engineering Modeling Using Artificial Intelligence)*

## Research Work

- Research Interests
  - Software
  - Artificial Intelligence
  - Data Science
  - Power Load Forecasting
  - Signal Processing
  - Speech Recognition and Identification
  - Software Engineering
  - Cloud Computing and Service Oriented Architecture (SOA)
  - E-Learning
  - Mobile Computing
  - Networking
  - Security
- Graduate Students Supervision
  - Co-Supervision of the Ph.D. Student, MohammadNoor Injadat, “*Development of E-Learning Models using Machine Learning Techniques,*” Western University, London, ON, Canada, September 2015 - Present
  - Co-Supervision of the Ph.D. Student, Fadi Salo, “*Intrusion Detection using Machine Learning Techniques,*” Western University, London, ON, Canada, 2015 - Present

The University of Western Ontario, London, Ontario, Canada

09/13 – 08/15

### **Instructor at the rank of Assistant Professor**

Department of Electrical and Computer Engineering

Department of Computer Science

- Preparing course outlines, assignment, projects and delivering lectures for graduate students in Electrical and Computer Engineering (ECE). These graduate courses are also open for graduate students in other departments / universities
- Preparing course outlines, assignments and delivering lectures for the 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup>, and 4<sup>th</sup> year students in Software Engineering (SE)
- Preparing course outlines, assignments and delivering lectures for the 3<sup>rd</sup> and 4<sup>th</sup> year students in Computer Science (CS)
- Responsible for marking exams and providing constructive feedback to students
- Participating with other faculty members from the ECE department in the CEAB (Canadian Engineering Accreditation Board) visits

## Courses Taught

- **Summer 2015**
  - CS1027 *Computer Science Fundamentals II in Java*
  - ES1026 *Programming Fundamentals for Engineers in C++*
- **Winter 2015**
  - CS3342 *Organization of Programming Languages*
  - ES1050 *Introductory Design and Innovation Studio*
- **Fall 2014**
  - ECE9660 *Special Topics in Software Engineering: Data Analytics, Warehousing and Mining (Graduate Course for MSc thesis based and PhD students)*

- ECE9066 *Special Topics in Software Engineering: Data Analytics, Warehousing and Mining (Graduate Course Graduate Course for MSc course work)*
- CS1037 *Computer Science Fundamentals II in C++*
- ES1050 *Introductory Design and Innovation Studio*
- SE4452 *Software Verification and Validation*
- **Winter 2014**
  - CS4471 *Software Design and Architecture*
  - CS9549 *Software Design and Architecture* (graduate course)
- **Fall 2013**
  - CS3357 *Computer Networks I*
  - SE3313 *Operating Systems for Software Engineering*
  - SE4452 *Software Verification and Validation*
- **Winter 2013**
  - SE3310 *Theoretical Foundations of Software Engineering*
- **Fall 2012**
  - SE4452 *Software Verification and Validation*

King's University College, London, Ontario, Canada

09/10 – 04/15

**Adjunct Professor**

- MOS1033 a/b (Information Technology in the Commercial Environment)
  - Preparing course outlines and delivering lectures in Information Systems for multiple sections of 70 students each, in Management and Organizational Studies (MOS)
  - Responsible for marking exams and assignments and providing constructive feedback to students

Fanshawe College, London, Ontario, Canada

09/13 – 12/13

**Instructor**

- INFO6016 *Network Programming*

The University of Western Ontario, London, Ontario, Canada

06/12 – 08/13

**Post-Doctoral Fellowship (Department of Electrical and Computer Engineering)**

- Conducting research in Software Engineering topics such as data mining, machine learning, requirements engineering, cloud computing and software estimation
- Helping in supervising Master's, Ph.D. and 4<sup>th</sup> year students
  - Sonia Meskini, Master's student, thesis title "*Reliability Models Applied to Smartphone Applications*", Supervisor: Dr. Luiz Fernando Capretz, graduated Aug. 2013, Western University, Canada
  - Fadi Salo, M.Eng. student, "Data Analytics in Social Media using Twitter", M.Eng. project supervisor, 2015, Western University, Canada
  - Hasan Jalal, M.Eng. student, "Data Analytics in Social Media using Facebook", M.Eng. project supervisor, 2015, Western University, Canada
  - William Bojcevski, Lam Pham and Nir Alter, 4<sup>th</sup> year Software Engineering Project "*The Ultimate Martial Arts Database*", 4<sup>th</sup> year project supervisor, 2012, Western University

The University of Western Ontario, London, Ontario, Canada

09/07 - 04/12

**Teaching Assistant**

- SE4450 (Software Engineering Design II)

09/11 - 04/12

- Supervising and providing assistance to 4<sup>th</sup> year software engineering students to develop projects following the Software Development Life Cycle (SDLC) process
- SE4452 (Software Verification and Validation) 09/09 - 12-10
  - Responsible marking assignments and providing constructive feedback
- SE3314 (Network Applications and Multimedia) 01/10 - 04/10
  - Responsible for running labs, marking assignments and providing constructive feedback
- CS1033 (Introduction to Multimedia and Communications) 09/07 - 06/08
  - Monitored laboratories for 3 sections of 20 students each, providing assistance with using different software used in multimedia
  - Marked assignments and provided constructive feedback

American Income Life Insurance (AIL), London, Ontario, Canada 04/07-08/07

**Insurance Agent**

- Selling life insurance policies
- Helping different labour union members with their insurance needs

Computouch, Bekaa, Lebanon 10/98 – 06/03

**Project and General Manager**

- Participated and directed staff of 5 in projects involving sales, assembling hardware, installing and maintaining software of different operating systems
- Provided IT consulting and services to companies to aid them in operating their IT at optimal levels
- Developed web sites to help small and mid-sized businesses to participate in e-commerce

Arts, Sciences and Technology University in Lebanon (AUL), Bekaa, Lebanon 09/03 – 06/06

**Computer Science Lecturer**

- Proficiently and independently prepared detailed lesson plans for courses such as Object Oriented Programming, Data Structure and Algorithms, Software Engineering, Requirement Analysis and System Design, Operating Systems, Programming I and II, Database Systems, Management Information System, Operations Management and Knowledge Management to provide students with a solid foundation in these areas
- Presided over Senior I and II projects to facilitate students' transition from academic experience to work experience in order to prepare them for a successful work life

**Business Lecturer**

- Proficiently and independently prepared detailed lesson plans for courses such as Management Information System, Operations Management, E-Commerce and Knowledge Management to provide students with a solid foundation in these areas
- Supervised Senior I and II projects: Building E-Commerce (B2C and C2C) models

Bekaa Technical Institute, Bekaa, Lebanon 10/99 – 06/06

**Computer Lecturer**

- Taught a diverse selection of courses such as UML, Client/Server, VB Script, Programming I (C) and II (C++), Microprocessor and Assembly Language, Networking I, Networking II, Communication Systems, Operating Systems, Digital Logic Design, Graduation Project (3 tier Client/Server Architecture)
- Demonstrating great communication and team player skills to 20-40 students per class per year

## Electronics Lecturer

- Provided instruction in electrical courses such as Electronic I, II, Electrical Circuits, Essentials of Electricity and Electrostatics, Mathematics I , Mathematics II, Television, Audio and Video Devices, Electronic I, II Lab, Television Lab
- Prepared and monitored labs to ensure theory could be applied practically

## **PUBLICATIONS**

### Book:

- 1- **Ali Bou Nassif**, "Measuring SaaS Applications based on Utilized Features," *LAP Lambert Academic Publishing*, ISBN-13: 978-3844328134, 2011

### Book Chapter:

- 2- **Ali Bou Nassif** and Miriam A.M. Capretz, "Offering SaaS as SOA services," in *Lecture Notes in Electrical Engineering*, K. Elleithy and T. Sobh, Eds. New York: SpringerLink, pp. 405-414, 2013

### Refereed Journal Papers (Published / In Press):

- 1- MohammadNoor Injadat, Abdallah Moubayed, **Ali Bou Nassif** and Abdallah Shami, "Multi-split Optimized Bagging Ensemble Model Selection for Multi-class Educational Data Mining," *Applied Intelligence*, Springer, 2020 (In Press)
- 2- MohammadNoor Injadat, Abdallah Moubayed, **Ali Bou Nassif** and Abdallah Shami, "Systematic ensemble model selection approach for educational data mining," *Knowledge-Based Systems*, Elsevier, Volume 200, 2020
- 3- Cuauhtémoc López-Martín, Yenny Villuendas-Rey, Mohammad Azzeh, Ali Bou Nassif and Shadi Banitaan, "Transformed k-nearest neighborhood output distance minimization for predicting the Defect Density of Software Projects," *Elsevier*, Volume 167, 2020
- 4- Ismail Shahin, **Ali Bou Nassif** and Shibani Hamsa, "Novel Cascaded Gaussian Mixture Model-Deep Neural Network Classifier for Speaker Identification in Emotional Talking Environments," *Neural Computing and Applications*, Springer, Volume 32, Issue 7, pp. 2575 – 2587, 2020
- 5- Ismail Shahin, **Ali Bou Nassif** and Shibani Hamsa, "Emotion Recognition using Hybrid Gaussian Mixture Model and Deep Neural Network," *IEEE Access*, Volume 7, pp. 26777 - 26787, 2019
- 6- **Ali Bou Nassif**, Ismail Shahin, Imtinan Attili, Mohammad Azzeh and Khaled Shaalan, "Speech Recognition Using Deep Neural Networks: a Systematic Review," *IEEE Access*, Volume 7, pp. 19143-19165, 2019
- 7- **Ali Bou Nassif**, Mohammad Azzeh, Ali Idri and Alain Abran, "Software Development Effort Estimation Using Regression Fuzzy Models," *Computational Intelligence and Neuroscience*, Hindawi, Volume 2019, pp. 1-17, 2019

- 8- Fadi Salo, **Ali Bou Nassif** and Aleksander Essex, "Dimensionality reduction with IG-PCA and ensemble classifier for network intrusion detection," *Computer Networks*, Elsevier, Volume 148, PP. 164-175, 2019
- 9- Mohammad Azzeh and **Ali Bou Nassif**, "Project Productivity Evaluation in Early Software Effort Estimation," *Journal of Software: Evolution and Process*, Wiley, Volume 30, Issue 12, pp. 1-12, 2018
- 10- Qassim Nasir, Ilham A. Qasse, Manar Abu Talib, and **Ali Bou Nassif** "Performance Analysis of Hyperledger Fabric Platforms," *Security and Communication Networks*, Hindawi, Volume 2018, pp. 1-14, 2018
- 11- Fadi Salo, MohammadNoor Injadat, **Ali Bou Nassif**, Abdallah Shami and Aleksander Essex "Data Mining Techniques in Intrusion Detection Systems: A Systematic Literature Review," *IEEE Access*, IEEE, Volume 6, pp. 56046-56058, 2018
- 12- Ismail Shahin and **Ali Bou Nassif** "Three-stage speaker verification architecture in emotional talking environments," *International Journal of Speech Technology*, Springer, Volume 21, Issue 4, pp. 915-930, 2018
- 13- Abdallah Moubayed, MohammadNoor Injadat, **Ali Bou Nassif**, Hanan Lutfiyya, Abdallah Shami "e-Learning: Challenges and Research Opportunities Using Machine Learning & Data Analytics," *IEEE Access*, IEEE, Volume 6, pp. 39117-39138, 2018
- 14- Ismail Shahin, **Ali Bou Nassif** and Mohammed Bahutair "Emirati-accented speaker identification in each of neutral and shouted talking environments," *International Journal of Speech Technology*, Springer, pp. 265-278, 2018
- 15- Mohamed Hosni, Ali Idri, Alain Abran and **Ali Bou Nassif** "On the value of Parameter Tuning in Heterogeneous Ensembles Effort Estimation," *Soft Computing*, Springer, Volume 22, Issue 18, pp. 5977-6010, 2018
- 16- Mohammad Azzeh and **Ali Bou Nassif**, "A Comparative Analysis of Soft Computing Techniques for Predicting Software Effort Based Use Case Points," *IET Software*, Volume 12, Issue 1, pp. 19-29, 2018
- 17- Cuauhtémoc López Martín, **Ali Bou Nassif**, and Alain Abran, "A training process for improving the quality of software projects developed by a practitioner," *Journal of Systems and Software*, Elsevier, Volume 131, pp. 98-111, 2017
- 18- Mohammad Azzeh and **Ali Bou Nassif**, "Analyzing the Relationship between Project Productivity and Environment Factors in the use case points method," *Journal of Software: Evolution and Process*, Wiley, Volume 29, Issue 9, 2017
- 19- Mohammad Azzeh and **Ali Bou Nassif**, "A hybrid model for estimating software project effort from Use Case Points," *Applied Soft Computing*, Elsevier, Volume 49, pp. 981-989, 2016
- 20- MohammadNoor Injadat, Fadi Salo and **Ali Bou Nassif**, "Data Mining Techniques in Social Media: A Survey," *Neurocomputing*, Volume 214, Issue 19, pp. 654-670, Elsevier, 2016
- 21- **Ali Bou Nassif**, Mohammad Azzeh, Luiz Fernando Capretz and Danny Ho, "Neural Network Models for Software Development Effort Estimation: A Comparative Study," *Neural Computing and Applications*, Volume 27, Issue 8, pp. 2369-2381, Springer, 2016
- 22- Mohammad Azzeh, **Ali Bou Nassif**, Shadi Banitaan and Fadi Almasalha "Pareto Efficient Multi-Objective Optimization for Local Tuning of Analogy-Based Estimation," *Neural Computing and Applications*, Volume 27, Issue 8, pp. 2241-2265, Springer, 2016
- 23- Mohammad Azzeh, **Ali Bou Nassif** and Leandro Minku, "An Empirical Evaluation of Ensemble Adjustment Methods for Analogy-Based Effort Estimation," *Journal of Systems and Software*, Volume 103, Elsevier, 2015, PP. 36-52

- 24- Mohammed Azzeh and **Ali Bou Nassif** “Analogy-Based Effort Estimation: A New Method to Discover Set of Analogies from Dataset Characteristics,” *IET Software*, Volume 9, Issue 2, April 2015, PP. 39-50
- 25- Wei Lin Du , Luiz Fernando Capretz, **Ali Bou Nassif**, and Danny Ho “A Hybrid Intelligent Model For Software Cost Estimation,” *Journal of Computer Science*, Science Publications, Volume 9, Issue 11, 2013, PP. 1506-1513
- 26- **Ali Bou Nassif**, Danny Ho and Luiz Fernando Capretz, “Towards an Early Software Estimation Using Log-Linear Regression and a Multilayer Perceptron Model,” *Journal of Systems and Software*, Elsevier, Volume 86, Issue 1, PP. 144-160, 2013
- 27- **Ali Bou Nassif**, Luiz Fernando Capretz and Danny Ho, “Enhancing Use Case Points Estimation Method using Soft Computing Techniques,” *Journal of Global Research in Computer Science*, Volume 1, No. 4, November 2010, PP. 12-21

#### Refereed Conference Papers:

- 1- **Ali Bou Nassif**, Manar AbuTaleb and Luiz Fernando Capretz, “Software Effort Estimation from Use Case Diagrams Using Nonlinear Regression Analysis,” *2020 Canadian Conference of Electrical and Computer Engineering*, 2020, London, Canada
- 2- Hamza Ghandorh, Abdulfattah Noorwali, **Ali Bou Nassif**, Luiz Fernando Capretz and Roy Eagleson, “A Systematic Literature Review for Software Portability Measurement: Preliminary Results,” *Proceedings of the 2020 9th International Conference on Software and Computer Applications*, 2020, pp: 152-157
- 3- Mariam AlAbboudi, Maitha Majed, Fatima Hassan, **Ali Bou Nassif**, “EEG Wheelchair for People of Determination,” *Advances in Science and Engineering Technology*, 2020, Dubai, UAE
- 4- Mohammed Baziyad, Ali Bou Nassif, Tamer Rabie, “Automated Mosque Recognition: A Convolutional Neural Networks and Laplacian Pyramid Approach,” *Advances in Science and Engineering Technology*, 2020, Dubai, UAE
- 5- Sonia Meskini, Ali Bou Nassif, Luiz Fernando Capretz, “Can we rely on smartphone applications?” *International Conference on Objects, Components, Models and Patterns*, Springer, 2019
- 6- Ismail Shahin, **Ali Bou Nassif**, “Speaker Verification in Emotional Talking Environments based on Third-Order Circular Suprasegmental Hidden Markov Model,” *The International Conference on Electrical and Computing Technologies and Applications*, 2019, pp: 1-6, RAK, UAE
- 7- Ismail Shahin, **Ali Bou Nassif**, “Emirati-Accented Speaker Identification in Stressful Talking Conditions,” *The International Conference on Electrical and Computing Technologies and Applications*, 2019, pp: 1-6, RAK, UAE
- 8- Mohammed Baziyad, **Ali Bou Nassif**, Tamer Rabie, Raouf Fareh, “Comparative Study on the Performance of Heuristic Optimization Techniques in Robotic Path Planning,” *Proceedings of the 2019 3rd International Conference on Advances in Artificial Intelligence*, 2020, pp: 157-161, Istanbul, Turkey
- 9- Fadi Salo, Mohammadnoor Injadat, **Ali Bou Nassif** and Aleksander Essex, “Data Mining with Big Data in Intrusion Detection Systems: A Systematic Literature Review,” *International Symposium on Big Data Management and Analytics*, 2019, Calgary, Canada
- 10- Fadi Salo, MohammadNoor Injadat, Abdallah Moubayed, **Ali Bou Nassif**, and Aleksander Essex, “Clustering Enabled Classification using Ensemble Feature Selection for Intrusion



- Detection,” *International Conference on Computing, Networking and Communications (ICNC)*, 2019, Hawaii, USA
- 11- **Ali Bou Nassif**, Omar Mahdi, Qassim Nasir, Manar Abu Talib, Mohammad Azzeh, “Machine Learning Classifications of Coronary Artery Disease,” *13th International Joint Symposium on Artificial Intelligence and Natural Language Processing*, 2018, Pattaya, Thailand,
  - 12- Cuauhtemoc Lopez-Martin, Mohammad Azzeh, **Ali Bou Nassif** and Shadi Banitaan, “v-SVR Polynomial Kernel for Predicting the Defect Density in New Software Projects,” *The 17th IEEE International Conference on Machine Learning and Applications*, 2018, Orlando, Florida, USA
  - 13- Ismail Shahin and **Ali Bou Nassif**, “Utilizing Third-Order Hidden Markov Models for Emotional Talking Condition Recognition,” *The 14th IEEE International Conference on Signal Processing*, 2018, Beijing, China
  - 14- MohammadNoor Injadat, Fadi Salo, **Ali Bou Nassif**, Aleksander Essex and Abdallah Shami, “Bayesian Optimization with Machine Learning Algorithms Towards Anomaly Detection,” the IEEE Global Communications Conference (Globecom 2018, **Acceptance Rate: 38%**), December 2018, Abu Dhabi, UAE
  - 15- Mohammad Azzeh and **Ali Bou Nassif**, “Ensemble of Learning Project Productivity in Software Effort Based on Use Case Points,” *The 17th IEEE International Conference on Machine Learning and Applications*, 2018, Orlando, Florida, USA
  - 16- **Ali Bou Nassif**, Mohammad Azzeh and Shadi Banitaan, “Robust Rank Aggregation Method for Case-Base Effort Estimation,” *the 30th annual IEEE Canadian Conference on Electrical and Computer Engineering (IEEE 2017 CCECE)*, 2017, Windsor, Ontario, Canada
  - 17- **Ali Bou Nassif** “Short Term Power Demand Prediction Using Stochastic Gradient Boosting,” *5th International Conference on Electronic Devices, Systems and Applications*, 2016, Ras Al Khaima, UAE
  - 18- Mohamed Hosni, Ali Idri, **Ali Bou Nassif** and Alain Abran, “Heterogeneous Ensembles for Software Development Effort Estimation,” *2016 International Conference on Soft Computing & Machine Intelligence (ISCFMI 2016)*, 2016, Dubai, UAE
  - 19- Shadi Banitaan, Mohammad Azzeh and **Ali Bou Nassif** “User Movement Prediction: The Contribution of Machine Learning Techniques” *15th IEEE International Conference on Machine Learning and Applications*, 2016, Los Angeles, USA
  - 20- Shadi Banitaan, **Ali Bou Nassif** and Mohammad Azzeh, “Class Decomposition using K-means and Hierarchical Clustering,” *14th IEEE International Conference on Machine Learning and Applications*, 2015, Miami, USA
  - 21- Mohammad Azzeh, **Ali Bou Nassif** and Shadi Banitaan, “An Application of Classification and Class Decomposition to Use Case Point Estimation Method” *14th IEEE International Conference on Machine Learning and Applications*, 2015, Miami, USA
  - 22- Hamza Ghandorh, **Ali Bou Nassif** and Luiz Fernando Capretz, “In Need of a Domain-Specific Language Modeling Notation for Smartphone Applications with Portable Capability,” *12th International Conference on Mobile Web and Intelligent Information Systems (MobiWis 2015)*, 2015, Rome, Italy
  - 23- Mohammad Azzeh, **Ali Bou Nassif** and Shadi Banitaan “A Better Case Adaptation Method for Case-Based Effort Estimation Using Multi-Objective Optimization,” *13th IEEE International Conference on Machine Learning and Applications (ICMLA 2014)*, December 2014, Detroit, MI, USA
  - 24- **Ali Bou Nassif**, Luiz Fernando Capretz and Danny Ho, “Calibrating Use Case Points,” *Companion Proceedings of the 36th International Conference on Software Engineering (ICSE 2014)*, June 2014, Hyderabad, India

- 25- Sonia Meskini, **Ali Bou Nassif**, and Luiz Fernando Capretz, “Reliability Prediction of Smartphone Applications Through Their Failure Data Analysis”, *The 19th IEEE Pacific Rim International Symposium on Dependable Computing (PRDC 2013)*, December 2013, Vancouver, BC, Canada
- 26- Mohammad Azzeh and **Ali Bou Nassif**, “Fuzzy Model Tree for Early Effort Estimation,” *12<sup>th</sup> IEEE International Conference on Machine Learning and Applications (ICMLA 2013)*, December 2013, Miami, Florida, USA
- 27- **Ali Bou Nassif**, Mohammad Azzeh, Luiz Fernando Capretz and Danny Ho, “A Comparison Between Decision Trees and Decision Tree Forests for Software Effort Estimation,” *The Third International Conference on Communications and Information Technology (ICCIT 2013)*, June 2013, Beirut, Lebanon
- 28- Sonia Meskini, **Ali Bou Nassif**, and Luiz Fernando Capretz, “Reliability Models Applied to Mobile Applications,” *The Seventh International Conference on Software Security and Reliability (SERE 2013)*, June 2013, Washington D.C., USA
- 29- Osama T. Ali, **Ali Bou Nassif** and Luiz Fernando Capretz, “Business Intelligence Solutions in Healthcare: Transforming OLTP System to BI Solution,” *The Third International Conference on Communications and Information Technology (ICCIT 2013)*, June 2013, Beirut, Lebanon
- 30- **Ali Bou Nassif**, Luiz Fernando Capretz, Danny Ho and Mohammad Azzeh, “A Treeboost Model for Software Effort Estimation Based on Use Case Points,” *11<sup>th</sup> IEEE International Conference on Machine Learning and Applications (ICMLA 2012)*, December 2012, Boca Raton, Florida, USA
- 31- **Ali Bou Nassif**, Luiz Fernando Capretz, Danny Ho and Mohammad Azzeh, “Estimating Software Effort Using an ANN Model Based on Use Case Points,” *11<sup>th</sup> IEEE International Conference on Machine Learning and Applications (ICMLA 2012)*, December 2012, Boca Raton, Florida, USA
- 32- Ekananta Manalif, Luiz Fernando Capretz, **Ali Bou Nassif** and Danny Ho, “Fuzzy-ExCOM Software Project Risk Assessment,” *11<sup>th</sup> IEEE International Conference on Machine Learning and Applications (ICMLA 2012)*, December 2012, Boca Raton, Florida, USA
- 33- **Ali Bou Nassif**, Luiz Fernando Capretz and Danny Ho, “Software Effort Estimation in the Early Stages of the Software Life Cycle Using a Cascade Correlation Neural Network Model,” *13<sup>th</sup> ACIS International Conference on Software Engineering, Artificial Intelligence, Networking and Parallel/Distributed Computing*, August 2012, Kyoto, Japan
- 34- **Ali Bou Nassif**, Luiz Fernando Capretz and Danny Ho, “Analyzing the non-functional requirements in the Desharnais dataset for software effort estimation,” *11<sup>th</sup> International Conference for Upcoming Engineers (ICUE 2012)*, August 2012, Toronto, Ontario, Canada
- 35- **Ali Bou Nassif**, Luiz Fernando Capretz and Danny Ho, “Estimating Software Effort Based on Use Case Point Model Using Sugeno Fuzzy Inference System,” *23<sup>rd</sup> IEEE International Conference on Tools with Artificial Intelligence (ICTAI 2011)*, November 2011, Boca Raton, Florida, USA
- 36- **Ali Bou Nassif**, Luiz Fernando Capretz and Danny Ho, “A Regression Model with Mamdani Fuzzy Inference System for Early Software Effort Estimation Based on Use Case Diagrams,” *2011 IEEE International Conference on Intelligent Computing and Intelligent Systems (ICIS 2011)*, November 2011, Guangzhou, Guangdong, China
- 37- **Ali Bou Nassif**, Danny Ho and Luiz Fernando Capretz, “Regression Model for Software Effort Estimation Based on the Use Case Point Method,” *2011 International Conference on Computer and Software Modeling (ICCSM 2011)*, September 2011, Singapore city, Singapore

- 38- **Ali Bou Nassif** and Hanan Lutfiyya, “Measuring the Usage of SaaS Applications Based on Utilized Features,” *2011 International Conference on Cloud Computing and Services Science (CLOSER 2011)*, May 2011, Noordwijkerhout, The Netherlands
- 39- **Ali Bou Nassif** and Miriam A.M. Capretz, “Moving from SaaS Applications towards SOA Services,” *IEEE 6<sup>th</sup> World Congress on Services (Services 2010)*, July 2010, Miami, Florida, USA
- 40- **Ali Bou Nassif**, Luiz Fernando Capretz and Danny Ho, “Software Estimation in the Early Stages of the Software Life Cycle,” *International Conference on Emerging Trends in Computer Science, Communications and Information Technology (CSCIT 2010)*, January 2010, Nanded, Maharashtra, India

## **RELATED TRAINING**

The University of Western Ontario, London, Ontario, Canada

02/08 –

### **The Western Certificate in University Teaching and Learning (In Progress)**

- Includes excessive training, courses and workshops to enhance the quality of teaching and understand the diversity among different cultures
- Components completed include Teaching Assistant Training Program (TATP), Advanced Teaching program (ATP), GS 9500, Teaching in the Canadian Classroom, 10 workshops in the Future Professor series, the Teaching Mentor Program for Graduate Students, Teaching Portfolio and Written Project (New Course Design)

Business Career College, London Ontario

2007

### **Life License Qualification Program (LLQP)**

Hariri Foundation (Cisco Regional Academy), Saida, Lebanon

2005

### **Cisco Certified Network Associate (CCNA) Instructor**

Formatech, Beirut, Lebanon

2002

### **Oracle Certified Professional (OCP), Developer Track**

Formatech, Beirut, Lebanon

2002

### **Java Programming**

Formatech, Beirut, Lebanon

2001

**Microsoft Certified Systems Engineer (MCSE 2000)**, successfully completed the first three courses

## **PROFESSIONAL MEMBERSHIPS**

- 1- Professional Engineers Ontario (PEO)
- 2- Orders of Engineers, Lebanon
- 3- IEEE Computer Society

## **PROFESSIONAL ACTIVITIES**

- 1- Assistant Dean of College of Graduate Studies (Sept. 2018 – Present)

- 2- ECE Associate Chair, University of Sharjah (Sept. 2016 – Present)
- 3- IEEE UAE Artificial Intelligence technical board member (July 2018 – Present)
- 4- ECE Strategic Plan committee, member, University of Sharjah (Sept. 2016)
- 5- ECE Ph.D. committee, member, University of Sharjah (Dec 2015 – 2016)
- 6- Member of PhD supervisory committee of PhD student in Engineering Management: Abdulaziz Fahad Ali Al Dowayan U00045906@sharjah.ac.ae, University of Sharjah
- 7- Representative of ECE department for Open Day (March 1, 2016 between 8:30 and 10:00), University of Sharjah
- 8- Community Service ECE representative in the college of Engineering, University of Sharjah (Sept. 2015 – Aug. 2017)
- 9- Technical Program Chair of the 7th International Conference of Computer Science & Information Technology, Amman, Jordan, 2016
- 10- Special Issue “Predictive Analytics Using Machine Learning” organizer and main Guest Editor at Neural Computing and Applications Journal (Published by Springer, 2014 Impact Factor = 1.569)
- 11- Special Issue “Soft Computing in Software Engineering” Guest Editor at Applied Soft Computing (Published by Elsevier, 2014 Impact Factor = 2.810)
- 12- Special Session/workshop main organizer and chair
  - Machine Learning for Predictive Models in Engineering Applications (MLPMEA) at the 18<sup>th</sup> IEEE International Conference on Machine Learning and Applications (ICMLA 2017), Boca Raton, Florida, December 17-20, 2019
  - Machine Learning for Predictive Models in Engineering Applications (MLPMEA) at the 17<sup>th</sup> IEEE International Conference on Machine Learning and Applications (ICMLA 2017), Orlando, Florida, December 18-21, 2018
  - Predictive Analytics Using Artificial Intelligence (PAAI) at the 11<sup>th</sup> International Conference on Developments in e-Systems Engineering - DeSE2018, Cambridge, UK, 2018
  - Machine Learning for Predictive Models in Engineering Applications (MLPMEA) at the 16<sup>th</sup> IEEE International Conference on Machine Learning and Applications (ICMLA 2017), Cancun, Mexico, December 18-21, 2017
  - Machine Learning for Predictive Models in Engineering Applications (MLPMEA) at the 15<sup>th</sup> IEEE International Conference on Machine Learning and Applications (ICMLA 2016), Anaheim, California, USA, December 18-20, 2016
  - Machine Learning for Predictive Models in Engineering Applications (MLPMEA) at the 14<sup>th</sup> IEEE International Conference on Machine Learning and Applications (ICMLA 2015), Miami, FL, USA, December 9-11, 2015
  - Machine Learning for Predictive Models (MLPM) at the 13<sup>th</sup> IEEE International Conference on Machine Learning and Applications (ICMLA 2014), Detroit, MI, USA, December 3-6, 2014
  - Machine Learning for Predictive Models (MLPM) at the 12<sup>th</sup> IEEE International Conference on Machine Learning and Applications (ICMLA 2013), Miami, FL, USA, December 4-7, 2013
  - Computational Intelligence Applications in Software Engineering (CIASE) at the The Third IEEE International Conference on Communications and Information Technology (ICCIT 2013), Beirut Lebanon, June 19-21, 2013
- 13- Session Chair and judge  
ECE Graduate Symposium, The University of Western Ontario, July 2013
- 14- Session Chair

15- Journal Reviewer

- a. International Journal of System Assurance Engineering and Management
- b. IEEE Access
- c. Journal of Software: Evolution and Process
- d. ACM Computing Survey (ACM)
- e. Empirical Software Engineering (Springer)
- f. Innovations in Systems and Software Engineering (Springer)
- g. Applied Soft Computing (Elsevier)
- h. Journal of Systems and Software (Elsevier)
- i. Information and Software Technology (Elsevier)
- j. Neural Computing and Applications (Springer)
- k. Journal of Universal Computer Science
- l. IET Software
- m. IEEE Computational Intelligence Magazine
- n. International Journal of Software Engineering and Knowledge Engineering
- o. Journal of Intelligent and Fuzzy Systems
- p. Information Technology and Management (Springer)
- q. Journal of King Saud University- Computer and Information Sciences (Elsevier)
- r. Journal of Circuits, Systems, and Computers (World Scientific)

16- Committee Member of International Conferences

- a. 18<sup>th</sup> IEEE International Conference on Machine Learning and Applications (ICMLA 2019)
- b. 17<sup>th</sup> IEEE International Conference on Machine Learning and Applications (ICMLA 2018)
- c. 11<sup>th</sup> International Conference on Developments in e-Systems Engineering - DeSE2018
- d. 16<sup>th</sup> IEEE International Conference on Machine Learning and Applications (ICMLA 2017)
- e. 15<sup>th</sup> IEEE International Conference on Machine Learning and Applications (ICMLA 2016)
- f. UAE Graduate Students Research Conference 2016
- g. The 15th IEEE International Symposium on Signal Processing and Information Technology (ISSPIT 2015)
- h. 14<sup>th</sup> IEEE International Conference on Machine Learning and Applications (ICMLA 2015)
- i. 11<sup>th</sup> International Conference on Innovations in Information Technology (IIT 2015)
- j. Global Information Infrastructure and Networking Symposium (GIIS 2015)
- k. 13<sup>th</sup> IEEE International Conference on Machine Learning and Applications (ICMLA 2014)
- l. 10<sup>th</sup> International Conference on Innovations in Information Technology (IIT 2014)
- m. 12<sup>th</sup> IEEE International Conference on Machine Learning and Applications (ICMLA 2013)
- n. 2012 IEEE Conference on Control, Systems & Industrial Informatics (ICCSII 2012)
- o. The Second International Conference on Communications and Information Technology (ICCIT 2012)
- p. The Third International Conference on Communications and Information Technology (ICCIT 2013)
- q. Computing, Communications and Applications Conference (ComComAp 2012)

- r. 8<sup>th</sup> International Conference on Ubiquitous Intelligence and Computing (UIC 2011)
- s. The 12<sup>th</sup> IEEE International Conference on Information Reuse and Integration (IRI 2011)
- t. The 5<sup>th</sup> IEEE International Workshop on Quality Oriented Reuse of Software (QUORS 2011)

#### 17- Invited Presentations

- a. “Challenges in building effective regression model”, *Computer Science Department, The University of Western Ontario*, October, 2012
- b. “The future of SaaS (Software as a Service)”, *ECE Department, The University of Western Ontario*, November 2010
- c. “How Utility Computing benefits Software as a Service”, *The University of Western Ontario Research in Computer Science (UWORCS, 2009)*, April, 2009

### **AWARDS & GRANTS**

- 1- Seed Research Project Grant, Primary Investigator, the University of Sharjah, 2016, project title “Decision Tree Models for Software Development Effort Estimation”. Grant amount 40,000 AED (\$11,000 USD)
- 2- Targeted Research Project, Co-Investigator, the University of Sharjah, 2017, project title “Construction and Analysis of Datasets for Arabic Sentiment Analysis”. Grant amount 188,000 AED (\$51,500 USD)
- 3- Competitive Research Project Grant, Co-Investigator, the University of Sharjah, 2016, project title “Capturing, Studying, and Analyzing Arabic Emirati-Accented Speech Database in Stressful and Emotional Talking Environments for Different Applications”. Grant amount 80,000 AED (\$22,000 USD)
- 4- Competitive Research Project Grant, Co-Investigator, the University of Sharjah, 2016, project title “Emotion Recognition in Each of Stressful and Emotional Talking Environments Using Artificial Models”. Grant amount 80,000 AED (\$22,000 USD)
- 5- Award of Excellence, USC Teaching Honour Roll for excellence of teaching in Computer Science, 2015-2016, Western University, Canada
- 6- Award of Excellence, USC Teaching Honour Roll for excellence of teaching in Electrical and Computer Engineering, 2015-2016, Western University, Canada
- 7- Ontario Graduate Scholarship (OGS), May 2012. Declined scholarship
- 8- Ontario Graduate Scholarship (OGS), Accepted scholarship from May 2011 until April 2012
- 9- Award for Outstanding Presentation in Graduate Symposium 2011, The University of Western Ontario

### **VOLUNTEER EXPERIENCE**

Independent Living Centre – London & Area, London, Ontario, Canada

09/07 – 08/14

#### **Computer Specialist and Webmaster**

- Responsible for maintaining computers (Hardware, Software, Networking) and updating the website