

RESEARCH INTERESTS

Multi-Objective Optimization, Evolutionary Algorithms, Game Theory, Machine Learning, Deep Learning, Cloud Computing, Body Sensor Network, and Molecular Communication.

EDUCATION

Ph.D. in Computer Science (GPA: 3.9/4.0)	May 2017
University of Massachusetts Boston	Boston, USA
M.S. in Computer Science	May 2014
University of Massachusetts Boston	Boston, USA
M.S. in Electrical Engineering	May 2012
University Ramon Llull – La Salle Engineering and Architecture.	Barcelona, Spain
M.S. in Telecommunication Engineering	May 2011
University Ramon Llull – La Salle Engineering and Architecture.	Barcelona, Spain
B.S. in Telecommunication Engineering	May 2009
University Ramon Llull – La Salle Engineering and Architecture.	Barcelona, Spain

SKILLS

TECHNICAL SKILLS:

- GENERAL PURPOSE PROGRAMMING LANGUAGE: Java, Python, C#, C++, C
- DATABASE: Relational DB (SQL), No Relational DB (MongoDB), ORM
- BACK-END: Javascript (NodeJS), Python (Django), Servlets, Php
- FRONT-END: HTML, Javascript (AngularJS, AJAX), CSS (Bootstrap), XML.
- MOBILE APP DEVELOPMENT: Android
- DISTRIBUTED COMPUTING: Spark (PySpark), ipython Notebook, Hadoop, HDFS
- CLOUD COMPUTING: AWS (EC2, EMR, and S3)
- STATISTICAL AND NUMERICAL PROGRAMMING LANGUAGE: R, Matlab, Python
- MACHINE LEARNING and OTHER RESEARCH TOOLS: Spark ML, Theano, JMetal, Numpy, Scipy, Matplotlib, Scikit-learn, Scikit-image
- TECH STACKS: LAMP, MEAN

LANGUAGES: Fluent in English, Chinese (Mandarin), Spanish and Catalan.

EXPERIENCES

DigitasLBi (Publicis Group)	Boston, USA
Data Scientist	2016
• Machine Learning (PySpark, Spark ML, Theano)	
• Image Processing (Scikit-image)	
• Data Collection (Phantom JS, Python Selenium)	
OpenMobile World Wide, Inc	Framingham, USA
Software Engineer	2015 – 2016
• Developing web automation API (Python script)	
• Backend implementation (AWS + Django)	
• Frontend implementation (Angularjs + Bootstrap)	
Potoo LLC	Boston, USA
Cofounder & Software Engineer	2014 – 2015
• Developing cloud integrated android app.	
• Database design (MongoDB)	
• Backend design (AWS + Nodejs)	
University of Massachusetts Boston	Boston, USA
Researcher	2013 – 2017
• Multi objective optimization algorithm (Evolutionary Algorithm, Game Theory, ...)	
• Sensing devices, Body Sensor Networks.	
• Performing simulations in cloud computing environment.	
Argelich Engineers NMS S.L.	Barcelona, Spain
Telecommunications Engineer	2009 – 2010
• Designing of communication networks.	
• Planning and managing projects.	
• Studying of feasibility and costing for projects.	

AWARDS

- Best paper award in SCIS 2014 Kitakyushu, Japan.**
(over 1000 submitted paper and 30% of acceptance rate)
- Full Graduate Assistant Scholarship (2013-present)**
- 2nd place in UMASS Boston Graduate Student's Symposium 2016.**
- 3rd place in UMASS Boston Graduate Student's Symposium 2015.**

PUBLICATIONS

Journal Articles:

- "Adaptive and Stable Integration of Energy Harvesting Aware Body Sensor Networks with Clouds" Yi Cheng-Ren, Suzuki Junichi, Omura Shingo, Hosoya Ryuichi IEEE System Journal (under 2nd review). Impact Factor: 1.98
- "Leveraging Active Guided Evolutionary Games for Adaptive and Stable Deployment of DVFS-Aware Cloud Applications" Yi Cheng Ren, Junichi Suzuki, Shingo Omura, Ryuichi Hosoya International Journal of Software Engineering and Knowledge Engineering. (Volume: 25, Issue: 05, Pages: 851-870)
- "Adaptive and Stable Virtual Machine Placement for Power and Performance Aware Clouds: A Hybrid Approach with Evolutionary Game Theory and Linear Programming" Yi Cheng-Ren, Suzuki Junichi, Omura Shingo, Hosoya Ryuichi IEEE Automated Software Engineering (under 2nd review). Impact Factor: 1.733

Conference Papers:

- "Leveraging Evolutionary Multiobjective Games for Configuring Cloud-integrated Body Sensor Networks" Yi Cheng-Ren, Junichi Suzuki, Dung H Phan, Shingo Omura, Ryuichi Hosoya **Best paper award** on 7th International Conference on Soft Computing and Intelligent Systems. (over 1000 submitted paper with Acceptance rate: 30%)
- "Adaptability and Stability in Dynamic Integration of Body Sensor Networks with Clouds" Yi Cheng Ren, Junichi Suzuki, Shingo Omura, Ryuichi Hosoya 2015 IEEE 14th International Symposium on Network Computing and Applications. (Acceptance Rate: 35.2% Rank: A)
- "An Evolutionary Game Theoretic Approach for Configuring Cloud-integrated Body Sensor Networks" Yi Cheng Ren, Jun Suzuki, Dung H Phan, Shingo Omura, Ryuichi Hosoya 2014 IEEE 13th International Symposium on Network Computing and Applications. (Acceptance Rate: 31.6% Rank: A)
- "Balancing Performance, Resource Efficiency and Energy Efficiency for Virtual Machine Deployment in DVFS-enabled Clouds: An Evolutionary Game Theoretic Approach" Yi Ren, Junichi Suzuki, Chonho Lee, Athanasios V Vasilakos, Shingo Omura, Katsuya Oba 2014 Conference on Genetic and Evolutionary Computation. (Acceptance Rate: 41% Rank: A)
- "Configuring Cloud-integrated Body Sensor Networks with Evolutionary Algorithms" Yi Cheng-Ren, Junichi Suzuki, Dung H Phan, Shigo Omura, Ryuichi Hosoya 9th International Conference on Body Area Networks. (Acceptance Rate: 35%)
- "Evolutionarily Reconfigurable Cloud-integrated Body Sensor Networks" Yi Cheng-Ren, Junichi Suzuki, Shingo Omura and Ryuichi, Hosoya 2015 17th International Conference on E-health Networking, Application and Services.
- "Body in the Cloud: Towards Visualilzation driven Optimization and Stabilization for Cloud Integrated Body Area Networks" Yi Cheng Ren, Junichi Suzuki, Ryuichi Hosoya 9th EAI International Conference on Bio-inspired Information and Communications Technologies.
- "Evolutionary Game Theoretic Power Capping for Virtual Machine Placement in Clouds" Yi Cheng-Ren, Junichi Suzuki, Athanasios V Vasilakos, Shingo Omura, Ryuichi Hosoya 8th EAI International Conference on Bio-inspired Information and Communications Technologies.
- "Cielo: An Evolutionary Game Theoretic Framework for Virtual Machine Placement in Clouds" Yi Ren, Jun Suzuki, Athanasios Vasilakos, Shingo Omura, Katsuya Oba 2014 International Conference on Future Internet of Things and Cloud.

PAPER REVIEWER

- Future Generation Computer Systems
- Complex and Intelligent Systems
- 9th EAI International Conference on Bio-inspired Information and Communications Technologies
- 17th International Conference on E-health Networking, Application and Services.
- 9th International Conference on Body Area Networks.

TEACHING

- Teaching Assistant at UMASS Boston Computer Science Department (Fall 2015, Spring 2016)
CS110: Introduction to Computing (Python programming lab and projects)
- Teaching Assistant at UMASS Boston Computer Science Department (Spring 2015)
CS210: Intermediate Computing with Data Structures (Java programming lab and projects)
- Teaching Assistant at UMASS Boston Computer Science Department (Spring 2014)
CS341: Computer Architecture (C++ programming lab and projects for Arduino)
- Teaching Assistant at UMASS Boston Computer Science Department (Fall 2014)
CS636: Database Application Development (Java Servlet + SQL programming lab and projects)

LEADERSHIP

Vice President

Computer Science Graduate Student Association, UMASS Boston

- Weekly hackathons
- Career advising services
- Academic counseling

Co-Founder

Potoo LLC

- Project management
- Company strategy planning

HOBBIES

Playing piano, swimming, and practising Taekwondo.