

CURRICULUM VITAE



Golnaz Sahebi

Doctoral Student
Department of Computing
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Date of Birth : March 15, 1981
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A last-year doctoral student in ICT with a broad background in computer science. Professional in solving high-dimensional multi-objective problems by applying meta-heuristic optimization methods, machine learning, deep learning, and parallel computing. Over 5 years of experiences in optimizing machine-learning algorithms to increase the efficiency and accuracy of the learning algorithm. Over 17 years of experiences in a wide range programming languages. Seven years experiences in teaching of computer science courses (2007-2013).

She is conducting her research on “Efficient Computations of Machine-learning Algorithms using Meta-heuristic Optimization”. She has already published over 15 papers and completed 53 credits at this point of her studies. She has the potential to come up with other novel and creative ideas. In this period, she has been a teacher assistant for the “wearable computing” and “energy efficient embedded electronics” courses. She has mentored all the projects by the students and managed them perfectly. She also successfully supervised one master student on his thesis.

RESEARCH INTERESTS

- Complex Problems Solving
- Artificial Intelligence
 - Modern (Meta-heuristic) Optimization
 - Machine Learning
 - Deep Learning
- Wearable Computing
- Parallel Computing
- Lightweight Computing for multi-robot systems
- Digital Health

EXAMPLE OF SOLVED COMPLEX PROBLEMS

- Feature selection for high-dimensional large/ small imbalanced medical datasets
- Solving systems of nonlinear equations
- Selecting a secure curve in elliptic curve cryptography

- Optimal placement for smart mobile access points in wireless sensor networks
- Optimized scheduling for heterogeneous computing systems
- Near-optimal scheduling for MPSoCs

SKILLS

- C, Python, C++, Java, Z, Object-Z, PHP, and SQL
- Genetic Programming (professional)
- Parallel Computing (MPI, Open MP, and Open CL)
- TensorFlow, Keras, Matlab, and Weka

EDUCATIONS

- 2015 (April)-now, Doctoral student at University of Turku.
- 2011-2014, M.Sc., Graduated in Computer Science, University of Tabriz, Tabriz, Iran.
(GPA: **18.70** out of 20 (Ranked 2nd in GPA in the academic year 2013-2014))
Thesis: “Improving Elliptic Curve Cryptosystem using Parallel Methods”
(**19.25** out of 20, A⁺ and obtained the best researcher status of the recent 5 years in our department.)
Supervisor: Dr. Jaber Karimpour
- 2001-2005, Bachelor of Computer Science, Faculty of Mathematics and Computer Science (The Center of Excellence in Mathematics of Iran), Shahid Bahonar University of Kerman, Kerman, Iran.
Bachelor’s Project: Research on CVS (Concurrent Versions System)
(**19** /20, A⁺)
Supervisor: Dr. S. Sheikhezadeh
- 1999-2000, Pre- University Diploma in Mathematics and Physics, Basirat Pre- University School, Kerman, Iran.
GPA: (**19.10**/ 20, A⁺)

DOCTORAL COURSEWORKS

Deep Learning, Data Analysis and Knowledge Discovery, Application of Data Analysis, Wearable Computing, Technology and Business Models of Autonomous Ships.

MASTER COURSEWORKS

Theoretical of Computer Science, System Design Theory (Network Security), Advanced Software Design, Seminar (Criticism and Checking of Elliptic Curve Cryptography), Evolutionary Computing, Parallel Algorithms, Topics on Computer Systems I (Super Compilers).

BACHELOR COURSEWORKS

Numerical linear algebra, numerical analysis, general, mathematics (I and II), statistics and probabilities (I and II), mathematical logic, formal theory of languages and automata, Theory of computation, discrete mathematics, problem solving and data structure, algorithm analysis and designing, principle of operating systems, principle of software designing, compilers, database systems, simulation and modeling, management of software projects, information storage and retrieval, computer networks, information system and designing, management of information systems.

WORKING EXPERIENCE

- 2015(April)-now, Working as a scientific researcher at University of Turku under supervision of Prof. Tenhunen, Prof.. Plosila, Dr. Ebrahimi.
- 2012-2013, Working as a research assistant at University of Tabriz, HPC Lab, Network Lab, and IT Center, under supervision of Prof. Isazadeh, Dr. Karimpour, and Dr. Lotfi
- Working as a research assistant at Shahid Bahonar University of Kerman HPC & Cloud Computing Lab.
- Web Developer, the Seventh Sense Company, 2002-2004, Kerman, Iran.

TEACHING AND TEACHER ASSISTANTSHIP EXPERIENCES

TA of energy efficient embedded electronics in Future Technologies department of University of Turku under supervision of Prof. Hannu Tenhunen, autumn 2018.

- TA of wearable computing course in Future Technologies department of University of Turku under supervision of Dr. Ebrahimi, spring 2017.
- TA of energy efficient embedded electronics course in Future Technologies department of University of Turku under supervision of prof. Tenhunen, autumn 2018 & 2019.
- Supervising a master student during his master thesis at University of Turku (2016-2017)
- Seven years' experience of teaching in computer science at Shahid Bahonar University and Alzahra University of Kerman.

AWARDS AND HONORS

- Obtaining the Nokia Foundation Award 2018 for the project: Optimizing of Deep Neural Networks for Smart Medical Embedded Devices
- Obtaining the K. Albin Johanssons Foundation Award 2019 for the project: Software Adaption for Efficient Computation of Machine Learning and Deep Neural Networks
- Obtaining the MATTI foundation scholarship, University of Turku, 2015 (for two years)
- The second Prize in the National Archery Championships Team of Iran, 2009

OTHER INTERESTS

Reading, walking, archery, playing piano, and watercolor painting.

REFERENCES

- **Prof. Juha Plosila**
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- **Adj. Prof. Masoumeh Ebrahimi**
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Sweden, and University of Turku, Finland
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