Mohamed Sofien BOUTAIB

Doctor in Computer Science

Born on 25/11/93 in Tunis (Tunisia) - Single
Institut Supérieur de Gestion, 41 Rue de la Liberté, cité Bouchoucha, 2000 le Bardo
Laboratory of Strategies for Modelling and ARtificial inTelligence Laboratory (SMART Lab)
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WORK EXPERIENCE

2022- Present **Assistant Professor** *within the Computer Science Department of the University of Monastir, ISI-Mahdia (www.isima.rnu.tn), Mahdia, Tunisia*

2021-2022 **Research and Teaching Assistant** *within the Computer Science Department of the University of Tunis, ISG-Tunis (www.isg.rnu.tn), Tunis, Tunisia*

2020-2021 **Research and Teaching Assistant** *within the Computer Science Department of the University of Tunis, ISG-Tunis (www.isg.rnu.tn), Tunis, Tunisia*

AREAS OF SPECIALIZATION

- Software Engineering
- Machine learning
- Uncertainty theories
- Optimization - Classification

EDUCATION

Jannuary 2022 **PhD in Computer Science with Business, Computer Science Department**.
Institut Supérieur de Gestion Tunis

Jully 2017 **Msc in Science and Techniques of Decision-Making Computing**.
Institut Supérieur de Gestion Tunis

Juin 2015 **BSc in Computer Science with Business (with first-class honors).**
Institut Supérieur de Gestion Tunis

UNIVERSITY PROJECTS

Jnavier 2022 **PhD in Computer Science with Business**.
Institut Supérieur de Gestion Tunis

– Title: Search-Based Code Smells Detection in Imbalanced and Uncertain Environments
– Supervisor : Dr. Slim Bechikh (FSEGN, Carthage)

Juillet 2017 **Msc in Science and Techniques of Decision-Making Computing.**
Institut Supérieur de Gestion Tunis
– Title: Incremental Possibilistic Decision Tree (IPDT)
– Supervisor: Pr. Zied Elouedi (ISG, Tunis)

Juin 2015 **BSc in Computer Science with Business (with first-class honors).**
Institut Supérieur de Gestion Tunis
– Title: Web SmarTT et Companion SmarTT : Deux applications complémentaires à SmarTT – Supervisor: Dr. Adnane Zribi (ISG, Tunis)

COURSES TAUGHT

- **Graduate courses:**
  - Programming in Data Science
  - IT applied to finance (Python)
- **Undergraduate courses:**
  - Relational database
  - Database Management System
  - Mathematical logic
  - Machine learning
  - Artificial Intelligence and Machine learning

COMPUTER SKILLS

- Operating systems: Windows XP/7/10
- Typing software: Microsoft Office – OpenOffice – LaTeX
- Programming languages: Pascal – C – C# – Java – Python-Lotus script – PL/SQL
- Scientific programming software: MATLAB, R
- Database management systems: Oracle – SQL Server – MySQL.
- Integrated development environments: Microsoft Visual Basic – Anaconda – .Net – Eclipse – NetBeans.

RESEARCH ACTIVITIES

Reviews for international journals:

- *IEEE Transactions on Evolutionary Computation (IF = 11.445)*
- *IEEE Access (IF = 3.367)*
- *Applied Soft Computing (IF = 6.725)*
- *Swarm and Evolutionary Computation (IF = 7.177)*

Conference program committee memberships:

***GECCO-2022 (Rank: A)**: The Genetic and Evolutionary Computation Conference (GECCO), Boston, USA.*

***IEEE CEC-2022 (Rank: B):** IEEE Congress on Evolutionary Computation (CEC), Padua, Italy.*

PUBLICATIONS

Journal papers:

[1] **Boutaib S**, Bechikh S, Palomba F, Elarbi M, Makhlouf M, Ben Said, L. (2021). Code smell detection and identification in imbalanced environments. Expert Systems With Applications, 166, 1-26.

[2] **Boutaib S**, Elarbi M, Bechikh S, Palomba F, Ben Said, L. (2021) Handling Uncertainty in SBSE: A Possibilistic Evolutionary Approach for Code Smells Detection. Empirical Software Engineering, 27, 1-78.

[3] **Boutaib S**, Elarbi M, Bechikh S, Coello C A C, Ben Said L. (2021). Uncertainty-wise Software Anti-patterns Detection: A Possibilistic Evolutionary Machine Learning Approach. Applied Soft Computing, 129, 1-20.

Conference papers:

[1] **Boutaib S**, Elarbi M, Bechikh S, Palomba F, Ben Said L.(2022). A Bilevel approach based for handling the multi-label problem over code smell detection problem. The 21th Genetic and Evolutionary Computation COnference (GECCO'22), soumis, **(Classe A).**

[2] **Boutaib S**, Elarbi M, Bechikh S, Palomba F, Ben Said L. (2021). A possibilistic evolutionary approach to handle the uncertainty of software metrics thresholds in code smells detection. IEEE International conference on software Quality, Reliability, and Security (IEEE QRS) (pp. 1–12).

[3] **Boutaib S**, Elarbi M, Bechikh S, Makhlouf M, Said L B. (2021). Dealing with Label Uncertainty in Web Service Anti-patterns Detection using a Possibilistic Evolutionary Approach. IEEE International Conference on Web Services (IEEE ICWS) (pp. 347-357).

[4] **Boutaib S**, Elarbi M, Bechikh S, Hung C C, Ben Said L. (2021). Software anti-patterns detection under uncertainty using a possibilistic evolutionary approach. European Conference on Genetic Programming (EuroGP) (pp. 181-197).

[5] **Boutaib S**,& Elouedi Z. (2018). Incremental possibilistic decision trees in non-specificity approach. The 13th International FLINS Conference (FLINS 2018) (pp. 339-346).

Posters

[1] **Boutaib S**, Bechikh S, Coello C A C, Hung C-C, Ben Said L. (2020). Handling Uncertainty in Code Smells Detection using a Possibilistic SBSE Approach. The 19th ACM Genetic and Evolutionary Computation COnference (ACM GECCO'20) (pp. 303–304).

LANGAGE SKILLS

- French: Very fluently written and spoken (*French is the teaching language in Tunisia*) – English: Fluently written and spoken.
- Arabic: Mother tongue.

HOBBIES

- Technology.
- Travelling and exploring other cultures
- Sport.