

DR. SHAHIN ROSTAMI

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ACADEMIC QUALIFICATIONS

Dec 2014	PhD in Computational Intelligence and Machine Learning with the Manchester Metropolitan University, United Kingdom. Thesis: “Preference Focussed Many-Objective Evolutionary Computation”.
Aug 2010	BSc (Hons) Computing - First Class with the Manchester Metropolitan University, United Kingdom.

TEACHING QUALIFICATIONS

Dec 2017	Senior Teaching Fellow (D3) of the UK Professional Standards Framework, Advance HE (formerly Higher Education Academy).
Feb 2016	Teaching Fellow (D2) of the UK Professional Standards Framework, Advance HE (formerly Higher Education Academy).
Jan 2012	PGCAP Teaching and Learning (10 Credits) with the Manchester Metropolitan University, United Kingdom.

WORK EXPERIENCE

May 2015 - Current	Lecturer in Computing with the Department of Computing & Informatics, Faculty of Science & Technology, Bournemouth University, United Kingdom.
Sep 2014 - May 2015	Demonstrator in Computing with the Department of Computing & Informatics, Faculty of Science & Technology, Bournemouth University, United Kingdom.
Sep 2011 - Aug 2014	Associate Lecturer , Graduate Tutor, and Demonstrator with the Manchester Metropolitan University, United Kingdom.
Apr 2010 - Nov 2010	Software Engineer with Building Blocks (UK) Ltd., Manchester, United Kingdom.
Jun 2008 - Feb 2010	Software Developer with Havas Lynx (formerly Creative Lynx Ltd.), Manchester, United Kingdom.

MANAGERIAL AND LEADERSHIP EXPERIENCE

Apr 2018 - Current	Teaching Mentor to Mrs Gail Ollis, Faculty of Science & Technology, Bournemouth University, United Kingdom.
Apr 2017 - Current	Programme Leader of MSc Applied Data Analytics, Bournemouth University, United Kingdom.
Feb 2016 - Nov 2018	V4L Steering Group Member , Representing the Faculty of Science & Technology, Bournemouth University, United Kingdom.
Jan 2016 - Jan 2019	Innovation in Education Leader , Faculty of Science & Technology, Bournemouth University, United Kingdom.

Jan 2016 - Current	Research Mentor to Dr. Gernot Liebchen, Faculty of Science & Technology, Bournemouth University, United Kingdom.
Aug 2015 - Sep 2017	External Moderator (Link Tutor) to the Bournemouth & Poole College, Bournemouth University, United Kingdom.
May 2015 - Dec 2015	Coordinator of the Intelligent Systems Group, Bournemouth University, United Kingdom.

PROFESSIONAL MEMBERSHIPS

Aug 2015 - Current	Computational Intelligence Society, IEEE
Aug 2015 - Current	Institute of Electrical and Electronics Engineers (IEEE)
Aug 2016 - Sep 2017	British Computer Society (BCS)

CURRICULUM DESIGN AND DEVELOPMENT

Jun 2018 - Current	MSc Applied Data Analytics , Revalidation, Faculty of Science & Technology, Bournemouth University, United Kingdom.
Jun 2016 - Jun 2017	Undergraduate Computing Framework , 7 BSc (Hons) programmes, Revalidation, Faculty of Science & Technology, Bournemouth University, United Kingdom.
May 2015 - Jul 2015	BSc (Hons) Cyber Security Management , Validation, Faculty of Science & Technology, Bournemouth University, United Kingdom.

TEACHING EXPERIENCE

Undergraduate Units (Unit Leader)

Sep 2018 - Current	Level 4 Applications of Principles of Programming , 340 students, Co-lead and Mentor, Faculty of Science & Technology, Bournemouth University, United Kingdom.
Sep 2015 - Aug 2018	Level 4 Principles of Programming , 80 students, Faculty of Science & Technology, Bournemouth University, United Kingdom.
Sep 2015 - Aug 2017	Level 4 Computers and Networks , 300 students, Faculty of Science & Technology, Bournemouth University, United Kingdom.

Postgraduate Units (Unit Leader)

Sep 2017 - Current	Level 7 Data Mining and Analytic Technologies , 15 students, Faculty of Science & Technology, Bournemouth University, United Kingdom.
May 2015 - Dec 2015	Level 7 Python for Security , 12 students, Faculty of Science & Technology, Bournemouth University, United Kingdom.

Workshops (Delivered)

Sep 2010 - Aug 2011	Level 5 Model View Controller for Enterprise , 30 students, Block-mode delivery, Faculty of Science and Engineering, Manchester Metropolitan University
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Delivered Units (Teaching Team)

Sep 2014 - Aug 2015	Level 5 Digital Forensics , 64 students, Faculty of Science & Technology, Bournemouth University, United Kingdom.
Sep 2014 - Aug 2015	Level 5 Forensic Computing , 18 students, Faculty of Science & Technology, Bournemouth University, United Kingdom.
Sep 2014 - Aug 2015	Level 4 Relational Databases , 253 students, Faculty of Science & Technology, Bournemouth University, United Kingdom.
Sep 2014 - Aug 2015	Level 4 Systems Analysis & Design , 253 students, Faculty of Science & Technology, Bournemouth University, United Kingdom.
Sep 2014 - Aug 2015	Level 4 Computers and Networks , 253 students, Faculty of Science & Technology, Bournemouth University, United Kingdom.
Sep 2012 - Aug 2014	Level 6 Advanced Computer and Network Technology , 25 students, Faculty of Science and Engineering, Manchester Metropolitan University
Sep 2012 - Aug 2014	Level 4 Computer and Network Technology , 30 students, Faculty of Science and

Engineering, Manchester Metropolitan University
 Sep 2011 - Aug 2012 **Level 4 Programming**, 30 students, Faculty of Science and Engineering, Manchester Metropolitan University

Outreach and Public Engagement

2018 - Current **Data Science Articles**, <https://blog.shahinrostami.com>
 2017 - Current **Public Educational Videos on Computational Intelligence**,
<https://www.youtube.com/watch?v=L--IxUH4fac>.
 2016 - 2017 **Mario A.I Research Project**, <http://www.shahinrostami.com/marp/>.
 2015 **Festival of Learning**, Cyber Security Awareness Session: Memory Manipulation, Bournemouth University.
 2015 **King Edwards School**, Cyber Security Awareness Session: Memory Manipulation.

Invited Sessions

Mar 2017 **Statistical Pairwise Comparison**, Invited Guest Lecture, for the Security Information and Event Management cohort, Faculty of Science & Technology, Bournemouth University, United Kingdom.
 Dec 2014 **Memory Manipulation**, Invited Guest Lecture, for the Digital Forensics and Forensic Computing cohort, Faculty of Science & Technology, Bournemouth University, United Kingdom.

Session Organisation

Oct 2018 **Google Visits Bournemouth University**, Invited Speaker Mark Charsley, hosted at the Bournemouth University. Organiser.
 Aug 2018 **TEF and NSS: A managerial view**, Invited Speaker Prof. Ferrante Neri, hosted at the Bournemouth University. Organiser.

EVALUATION AND PANEL EXPERIENCE

Oct 2017 **PhD Viva Chair**, Thesis of Mahmood Hosseini: "Engineering of Transparency Requirements in Business Information System", Bournemouth University.
 Mar 2017 - Current **Independent Pay & Promotion Panel Member**, Grade 7-9, Bournemouth University, United Kingdom.
 Jan 2016 **Panel Member**, 5 candidates for Grade 5 post (Demonstrator in Computing), Bournemouth University.
 Jan 2017 - Current **PGR Transfer Panel**, multiple candidates, Bournemouth University.
 Jan 2016 - Current **PhD Interview Chair**, multiple candidates, Bournemouth University.
 Jan 2016 - Current **PhD Interview Panel**, multiple candidates, Bournemouth University.
 Jan 2016 - Current **HEA Fellowship Assessment Panel**, for D1, D2, and D3, Bournemouth University.

SUPERVISION

PhD, Postgraduate Research Student

Sep 2018 - Ongoing **Saygun Guler**, Bournemouth University, Thesis: "Non-contact remote monitoring of human vital signs: defining the "art of the possible"", 2nd supervisor with Prof. Alison McConnell.
 Jan 2017 - Ongoing **Kevin Wilson**, Bournemouth University, Thesis: "Many-Objective Evolutionary Computation", 1st supervisor with Prof. Siamak Noroozi.
 Sep 2016 - Ongoing **Waqas Jamil**, Bournemouth University, Thesis: "Sketches and Online Learning", 2nd supervisor with Prof. Hamid Bouchachia.
 Apr 2016 - Ongoing **Mohammed Alqurashi**, Bournemouth University, Thesis: "An Intrusion Detection System for IoT Enabled Devices", 2nd supervisor with Prof. Vasilis Katos.

MSc (European System), Postgraduate Research Student

Sep 2015 - Sep 2016 **Michele Di Lecce**, Visiting Research Student from Technical University of Bari, Italy at De

Montfort University, Thesis: “An accelerated Selection Method for Many-Objective Optimization”, Invited external supervisor with Prof. Ferrante Neri.

Research Assistants

- Sep 2017 - Aug 2018 **Ashley Prince**, Bournemouth University, Project: “Towards a scalable exact hypervolume indicator.”.
- Sep 2017 - Aug 2018 **Donya Rahmani**, Bournemouth University, Project: “Pattern Recognition and Data Quality in EEG data-sets.”.
- Sep 2016 - Aug 2017 **Sherin Varghese**, Bournemouth University, Project: “EEG data-set for Adaptive Computer Interfaces for Improved Productivity and Personal Health.”.
- Sep 2016 - Aug 2017 **Flynn Acworth**, Bournemouth University, Project: “Visualisation of the Evolutionary Computation Process to Improve Understanding and Track Erroneous Behaviour.”.
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MSc, Postgraduate Project Supervision (Selected)

- Sep 2017 - Sep 2018 **Thi Pham**, Bournemouth University, Thesis: “Matrix Factorization with Sentiment Analysis: A Hybrid Recommendation System”, 1st supervisor.
- Sep 2017 - Sep 2018 **Ching Ru-Kuo**, Bournemouth University, Thesis: Identity Informed Usage for Problematic Smartphone Users from a Statistical Perspective”, 2nd supervisor with Dr. Raian Ali.
- Sep 2017 - Sep 2018 **Fiona Shorten**, Bournemouth University, Thesis: “Data Analytics for Smartphone Usage Emotions and Framing Interventions”, 2nd supervisor with Dr. Raian Ali.
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BSc, Undergraduate Project Supervision (Selected)

- Jan 2016 - Jun 2017 **William Knight**, Bournemouth University, Dissertation: “Applying Machine Learning to Non-Contact Pulse Detection via Webcam”. Nominated for best project award.
- Jan 2017 - Jun 2017 **Valentin Bratanov**, Bournemouth University, Dissertation: “Incorporation of a Machine Learning System into the Mortgage Application Decision Making Process”. Winner of the JP Morgan award for an excellent project.
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RESEARCH EXPERIENCE

Journal Reviewer

- Jun 2016 - Current **Integrated Computer-Aided Engineering (ICAE)**, IOS Press.
- Sep 2016 - Current **International Journal of Neural Systems (IJNS)**, World Scientific.
- Sep 2015 - Current **Information Sciences (INS)**, Elsevier.
- Sep 2015 - Current **Swarm and Evolutionary Computation (SWEVO)**, Elsevier.
- Sep 2015 **Expert Systems with Applications (EWSA)** Elsevier.
- Sep 2015 **Computers & Security (COSE)**, Elsevier.
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Conference Organisation

- Sep 2018 **UKCI 2018 : 18th Annual UK Workshop on Computational Intelligence**, Programme Committee.
- May 2018 **IEEE International Conference on Computational Intelligence in Bioinformatics and Computational Biology 2018 (IEEE CIBCB 2018)**. Programme Committee
- Oct 2017 **IEEE International Conference on Data Science and Advanced Analytics 2-017 (IEEE DSAA 2017)**, Programme Committee.
- Aug 2017 **Machine Learning in Medical Diagnosis and Prognosis**, Special Session at the IEEE International Conference on Computational Intelligence in Bioinformatics and Computational Biology (IEEE CIBCB 2017). Organiser and Session Chair.
- Apr 2017 **British Conference of Undergraduate Research 2017 (BCUR 2017)**, Scientific Committee.
- Mar 2017 **IEEE International Conference on Computational Intelligence in Bioinformatics and Computational Biology 2017 (IEEE CIBCB 2017)**. Programme Committee.
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Session Organisation

- May 2018 **Machine learning approaches to retail demand forecasting**, Invited Speaker Dr. Damien Fay of Infor, hosted at the Bournemouth University. Organiser.
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Research Visits

Jul 2018 **Centre for Computational Intelligence, De Montfort University, United Kingdom**, Visiting Researcher, invited by Prof. Ferrante Neri, Associate Head of School of Computer Science and Informatics. Project: “Algorithmic Design Issues in Neuroevolution”.

FUNDED PROJECTS AND AWARDS

Externally Funded Projects

July 2018 **SPEED - Smart Ports Entrepreneurial Ecosystem Development**, awarded by the European Regional Development Fund (ERDF) - Interreg 2 Seas Programme, as Co-Investigator with Primary Investigator Dr. Reza Sahandi, Bournemouth University. Total: €393,783.75.

Sep 2016 - Sep 2018 **EduWeb - Combatting Digital Exclusion: Children Educate Digital illiterate Adults in Safe and Creative Web**, awarded by the European Commission, as Researcher with Primary Investigator Prof. Vasilis Katos, Bournemouth University. Total: £195,181.00

Mar 2018 **Non-contact remote monitoring of human vital signs: defining the ‘art of the possible**, match-funded PhD Studentship between Xim Ltd. and the Bournemouth University, with Prof. Alison McConnell, Bournemouth University. Total: £22,800.00

Apr 2015 **New multidisciplinary adaptive computer interfaces for improved productivity and personal health**, awarded by the NVIDIA CORPORATION, as Primary-Investigator, Bournemouth University. Research Equipment Total Value: £1,200.00.

Internally Funded Projects

Apr 2018 **Towards a scalable exact hypervolume indicator**, with Dr. Natalia Chechina, awarded by Bournemouth University. Total: £1,708.56.

Mar 2017 **An investigation into falsely classified samples in pattern recognition models**, awarded by Bournemouth University with Dr. Gernot Liebchen. Total: £1500.

Feb 2017 **MooViz: Visualisation of the Evolutionary Computation Process to Improve Understanding and Track Erroneous Behaviour**, with Dr. Nan Jiang, awarded by Bournemouth University. Total £2500.

Dec 2016 **EEG data-set for Adaptive Computer Interfaces for Improved Productivity and Personal Health**, awarded by Bournemouth University. Total: £2000.

Oct 2015 **New multidisciplinary adaptive computer interfaces for improved productivity and personal health**, with Dr. Nan Jiang, awarded by Bournemouth University. Total: £8,826

RECOGNITIONS

2017 - 2018 **You’re Brilliant Award**, for “During the final year of my studies Dr Rostami went out of his way to guide me during my dissertation. What was above and beyond however, was the level of attention and attitude he gave out of university hours being on call way beyond office hours. As well as this his advice was vital not just to the completion of my degree but also to the start of my career”. Awarded by the Student Union, Bournemouth University.

2017 - 2018 **You’re Brilliant Award**, for “great project supervision”, “inspiring passion” and being “the best example of a university role mode”. Awarded by the Student Union, Bournemouth University.

2016 - 2017 **You’re Brilliant Award**, for being “a very fun and engaging”. Awarded by the Student Union, Bournemouth University.

2016 - 2017 **You’re Brilliant Award**, for “putting in more effort as a lecturer, even at 1am, than anyone else”. Awarded by the Student Union, Bournemouth University.

2016 - 2017 **You’re Brilliant Award**, for being “very approachable, making learning fun, and having a great teaching style”. Awarded by the Student Union, Bournemouth University.

2015 - 2016 **You’re Brilliant Award**, for “going above and beyond with students, and taking on feedback and actioning it quickly.”. Awarded by the Student Union, Bournemouth University.

2015 - 2016 **Learning Excellence**, in recognition for competition entry on the topic of employing technology to encourage engagement in large cohorts. Awarded by Vision4Learning,

Bournemouth University.

COMPUTER LITERACY

Prog. Languages	C#, Python, C/C++, MATLAB, Java, PHP, JavaScript, Visual Basic
Databases	Microsoft SQL, MySQL, Oracle (SQL, PL/SQL)
Technical Software	TensorFlow, Keras, MATLAB, Docker, Unity3d, Blender.

TRAINING

2018	Medical Research & Education , 6 Category 1 (external) CPD credits and 6 hours of GP accredited education, by CoPMRE.
2018	Computer Science Curriculum Workshop , (24 hours), by Google UK.
2017	Grants & Bid Writing Workshop (8 hours)
2017	Preparing Impact Case Studies for REF2021 , (4 hours), by Vertigo Venture
2016	Grants Academy (24 hours)
2016	Cerulean Unconscious Bias Workshop (4 hours), Cerulean
2016	Unconscious Bias Workshop , (1 hour)
2016	Inclusive, Cohesive & Safe Campuses , (2 hours)
2015	Education Quality , (2 hours)
2015	Doctoral Supervision Development , (15 hours)
2014	MATLAB Parallel-Computing Workshop (3 hours)
2013	Personal Learning Plans for Students with Dyslexia (2 hours)

LIST OF PUBLICATIONS

Refereed Journal Articles

- [J6] Rostami, S., & Neri, F. (2017). A fast hypervolume driven selection mechanism for many-objective optimisation problems. *Swarm and evolutionary computation*, 34, 50-67.
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- [J5] Rostami, S., Neri, F., & Epitropakis, M. (2017). Progressive preference articulation for decision making in multi-objective optimisation problems. *Integrated Computer-Aided Engineering*, 24(4), 315-335.
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- [J4] Tsimperidis, I., Rostami, S., & Katos, V. (2017). Age detection through keystroke dynamics from user authentication failures. *International Journal of Digital Crime and Forensics (IJDCF)*, 9(1), 1-16.
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- [J3] Rostami, S., & Neri, F. (2016). Covariance matrix adaptation pareto archived evolution strategy with hypervolume-sorted adaptive grid algorithm. *Integrated Computer-Aided Engineering*, 23(4), 313-329.
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- [J2] Rostami, S., & Shenfield, A. (2017). A multi-tier adaptive grid algorithm for the evolutionary multi-objective optimisation of complex problems. *Soft Computing*, 21(17), 4963-4979.
-
- [J1] Rostami, S., O'Reilly, D., Shenfield, A., & Bowring, N. (2015). A novel preference articulation operator for the evolutionary multi-objective optimisation of classifiers in concealed weapons detection. *Information Sciences*, 295, 494-520.
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Articles in Refereed Conference Proceedings, Post-proceedings, and Edited Book

- [C9] Saul, M.A. and Rostami, S. (2018). A Comparison of Resampling Techniques for Pattern Classification in Imbalanced Data-Sets, UKCI 2018: 18th annual UK workshop on computational intelligence, 5-7 September 2018, Nottingham Trent University, Nottingham, United Kingdom.
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- [C8] Wilson, K. and Rostami, S. (2018). On the Integrity of Performance Comparison for Evolutionary Multi-objective Optimisation Algorithms, UKCI 2018: 18th annual UK workshop on computational intelligence,, 5-7 September 2018, Nottingham Trent University, Nottingham, United Kingdom.
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- [C7] Nava, T., Rostami, S. and Smyth, B. (2018). Knowing the unknown: visualising consumption blind-spots in recommender system. In: SAC 2018 The 33rd ACM/SIGAPP Symposium On Applied Computing, 9-13 April 2018, Pau, France.
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- [C6] Shenfield, A., & Rostami, S. (2017). Multi-objective evolution of artificial neural networks in multi-class
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medical diagnosis problems with class imbalance. In Computational Intelligence in Bioinformatics and Computational Biology (CIBCB), 2017 IEEE Conference on (pp. 1-8). IEEE.

[C5] Shenfield, A., & Rostami, S. (2015). A multi objective approach to evolving artificial neural networks for coronary heart disease classification," 2015 IEEE Conference on Computational Intelligence in Bioinformatics and Computational Biology (CIBCB), Niagara Falls, ON, 2015, pp. 1-8.

[C4] Rostami, S., Shenfield, A., Sigurnjak, S., & Fakorede, O. (2015). Evaluation of mental workload and familiarity in human computer interaction with integrated development environments using single-channel EEG. In Proceeding of PPIG 2015-26th Annual Workshop.

[C3] Rostami, S., Delves, P., & Shenfield, A. (2013). Evolutionary Multi-Objective Optimisation of an Automotive Active Steering Controller. In Science and Engineering Research Symposium (pp. 1-3).

[C2] Rostami, S., & Shenfield, A. (2012, September). Cma-paes: Pareto archived evolution strategy using covariance matrix adaptation for multi-objective optimisation. In Computational Intelligence (UKCI), 2012 12th UK Workshop on (pp. 1-8). IEEE.

[C1] Rostami, S., & Shenfield, A. (2012). Adaptive Grid Archiving Combined with the Covariance Matrix Adaptation Evolution Strategy.
