

## Tutorial Proposal for ACM SAC 2018

- **Title:** Developing Fashion Personalized Applications using Recommendation Systems and Data Mining Techniques

- **Presenters:** Evandro Costa, Hemilis Rocha, Emanuele Tuane and Artur Maia

- **Abstract:**

The aim of this tutorial is to bring together researchers and practitioners working on various aspects of recommender systems for fashion domain, including data-driven and knowledge based approaches. Hence, this tutorial aims to cover both the theory and practice of Recommender Systems, providing a systematic study and techniques for making personalized recommendations, including their main concepts and approaches with a detailed taxonomy, as well as illustrating them with practical examples. Thus, the first part of the tutorial introduces concepts, methods and techniques associated with artificial intelligence techniques focused on recommender systems and data mining/machine learning. The second part covers aspects of constructing fashion personalized applications of recommendation systems, giving participants the opportunity to know the potential of such systems in fashion domain, including demonstration of a clothing personalized recommender system.

### Short bios:

**Evandro de Barros Costa** is Associate Professor in the Computing Institute at Federal University of Alagoas, Brazil. He obtained his BSc degree in computer science from Federal University of Paraiba (UFPB), Brazil. Later, he received his Master degree in Electrical Engineering – Information Processing, from UFPB, Brazil, and his PhD in Electrical Engineering – Information Processing, from the same university. He coordinates a research group named TIPS (Technologies equipped with Intelligence, Personalization and Socialization). His research interests include Knowledge Representation and Reasoning, Machine Learning and Data Mining, Personalized Recommender Systems, Intelligent Tutoring Systems, Multiagent Systems, Social and Semantic Web. He teaches disciplines, such as Artificial Intelligence, Machine Learning and Data Mining, Knowledge Discovery in Databases, among others. He has published various papers in international conferences and journals. He has been on the Technical Program Committee of many conferences, such as UMAP (Conference on User Modelling, Adaptation and Personalization), Web Intelligence, ITS (Intelligent Tutoring Systems), AIED (Artificial Intelligence in Education),

BRACIS (Brazilian Conference on Intelligent System), and has been reviewer on some international journals, such as Information Science, IEEE Transactions on Education, IEEE Transactions on Learning Technologies, International Journal of Web Based Communities, Expert Systems with Applications. He advised 6 PhD thesis and 53 Master Thesis. He has co-authored or presented tutorials in conferences, such as the International Conference on Artificial Intelligence in Education (AIED-2007 <http://iaied.org/media/conferences/past/AIED2007/wt.html> ), the Brazilian Symposium on Informatics and Education (see <http://cbie2012.nce.ufrj.br/jaie/minicursos.html>, <http://perseus.nied.unicamp.br/joomla/index.php/jaie.html>, and <http://www.br-ie.org/pub/index.php/pie/issue/view/146>), the Brazilian Symposium on Multimedia Systems and Web, among others. Evandro Costa has also been organizer, co-organizer of conferences and workshops in his research field, such as the Intelligent Tutoring System international conference (ITS 2002), the Brazilian Symposium on Artificial Intelligence, the Brazilian Symposium on Informatics in Education, the Workshop on Architectures and Methodologies for Building Agent-based Learning Environments and the First Brazilian Workshop on Semantic Web and Education. He has participated in various international and national research projects. He has given invited talks in various countries, e.g. Brazil, Canada, Portugal, Spain, France, etc.

**Hemilis Rocha** is a teacher of Informatics at Federal Institute of Alagoas, Brazil. She is the leader of the of the Research Group named TEIA (Emergent Technologies in Artificial Intelligence). She received a B.S. degree in Information System from the Faculty of Alagoas (FAL), Brazil, in 2009, an M.Sc. degree Knowledge Computational Modeling in from the Federal University of Alagoas, Brazil, in 2012. Her research interests include Knowledge Representation and Reasoning, Personalized Recommender Systems, Intelligent Tutoring Systems. She has published papers in international conferences, including Frontiers in Education (FIE), International Conference on Enterprise Information Systems (ICEIS), World Conference on Information Systems and Technologies (WorldCist), Edulearn, Internet/WWW. She participated of the Technical Program Committee of WorldCist2016 Conference. She has co-authored or presented tutorial in conferences, such as the Brazilian Symposium on Informatics and Education (see <http://www.br-ie.org/pub/index.php/pie/issue/view/146>). She has taught disciplines, such as Artificial Intelligence, Programming, Statistics and Probability.

**Emanuele Silva** is a graduate student of Knowledge Computational Modeling at Federal University of Alagoas (UFAL), Brazil. She received a B.S. degree in Computer Science from UFAL in 2016. In 2014 she participated of Science without Borders that is a large scale nationwide scholarship program funded by the Brazilian federal government, studying one year in the Arizona State University. This program seeks to expand the initiatives of science and technology through international mobility of undergraduate and graduate students and researchers. She worked as undergraduate teaching assistant (UGTA) in Calculus I and Design and Analysis of Algorithms. Currently, she is a member of the Research Group named TIPS (Technologies equipped with Intelligence, Personalization and Socialization) and her research interests include Intelligent Tutoring Systems, Knowledge Representation and Reasoning, Personalized Recommender Systems, Machine Learning and Data Mining. She has published papers in international conferences, including Frontiers in Education (FIE), International Conference on Enterprise Information Systems (ICEIS), World Conference on Information Systems and Technologies (WorldCist), and International Conference on Intelligent Tutoring Systems (ITS).

**Artur Maia** is a Master student in Computing in the Federal University of Alagoas (UFAL), Brazil. He received a B.S. degree in Computer Science, in 2016, from UFAL, Brazil. He participated in scientific initiation projects in the area of software engineering. In 2017, he completed a Swift programming language course for iOS devices offered by IBM in association with the Eldorado Research institute. He is working on a teaching internship in the field of Artificial Intelligence. His research interests include Personalized Recommender Systems, Machine Learning, Data Mining, Knowledge Representation and Reasoning, Software Engineering, Natural Language Processing and Database.