## **Call for Book Chapters**

# "Engineering and Management of Data Science, Analytics, and AI/ML Projects"

- foundations, models, frameworks, architectures, standards, processes, practices, platforms and tools for small and big data -



#### Book Co-Editors:

Prof. Manuel Mora, Autonomous University of Aguascalientes, Mexico Prof. Jorge Marx Gómez, University of Oldenburg, Germany Prof. Fen Wang, Central Washington University, USA Prof. Hector Duran-Limon, University of Guadalajara, Mexico

### RATIONALE

This book aims to provide a dual perspective on modern research and praxis on Data Science, Analytics, and Al/Machine Learning (DSA-Al/ML) projects with small or big data. Academics, researchers and practitioners interested in the systematic development of Data Science, Analytics, and Al/Machine Learning projects will find chapters reporting Engineering and Management foundations regarding bases, models, frameworks, architectures, and standards for DSA-Al/ML projects. Readers also will find chapters on the most relevant available heavyweight, lightweight and agile development processes and practices, as well as reviews on platforms and tools for DSA-Al/ML projects. Finally this book expects to provide chapters on achievements, challenges and trends of DSA-Al/ML projects.

#### TOPICS OF INTEREST

This call for book chapters invites researchers from the disciplines of Data Science, Analytics, AI/ML and Software and Systems Engineering to submit high-quality conceptual and/or empirical research chapters on any of the following specific section/topics:

- Section I Foundations on Engineering and Management of Data Science, Analytics, and Al/ML Projects. Topics: fundamental overviews, models, frameworks, architectures, and standards for DSA-Al/ML projects.
- Section II Development Engineering and Management of Data Science, Analytics, and AI/ML Projects. Topics: heavyweight, lightweight and agile development processes and practices for DSA-AI/ML projects.
- Section III Development Platforms and Tools for Data Science, Analytics, and Al/ML Projects. Topics: technical reviews, comparative studies, didactical descriptions, performance studies on the diverse technological resources. required for DSA-Al/ML projects.
- Section IV Achievements, Challenges, Trends and Future Research Directions on Data Science, Analytics, and AI/ML Projects. Topics: Review of real-life achievements, challenges, current problems and limitations, trends, and future research directions.

### **KEY REFERENCES**

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- Huyen, C. (2022). Designing Machine Learning Systems. O'Reilly Media, Inc.
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- Mora, M., Wang, F., Marx-Gomez, J. & Duran-Limon, H. (Co-Eds.) (2023). Development Methodologies for Big Data Analytics Systems: Plan-driven, Agile, Hybrid, Lightweight Approaches. Springer.
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#### DEADLINES

- Chapter proposal deadline:
- Chapter submission deadline:
- First chapter review decision:
- Chapter re-submission deadline:
- Final chapter review decision:
- Camera-ready submission:
- Book publication:

August 31, 2024 January 31, 2025 March 31, 2025 May 31, 2025 June 30, 2025 July 31, 2025 Late 2025 or early 2026

#### SUBMISSION PROCESS

- All interested authors are encouraged to submit your chapter proposal (title, authors-affiliations, 300-word abstract, and 7-10 main references) to Co-Editors (Prof. Manuel Mora at <a href="mailto:jose.mora@edu.uaa.mx">jose.mora@edu.uaa.mx</a>) on or before August 31, 2024. Co-Editors will provide an initial forward or stop editorial decision based on the suitability of the topic proposed.
- The full chapter submission for suitable topics must be before or on January 31, 2025, to Co-Editor (Prof. Manuel Mora at jose.mora@edu.uaa.mx). Each chapter will be evaluated by at least two academic peers on related themes in a blind mode. Conditioned chapters will have an additional opportunity for being improved and evaluated. In the second evaluation, a definitive editorial decision among: accepted or rejected will be reported. All accepted chapters must be submitted according to the Editorial publishing format rules timely. Instructions for authors can be downloaded at:
  - o <u>T1-book.zip</u>
  - o Chapter Key Style Points

#### BOOK CO-EDITORS BIOS.

- Manuel Mora is a full-time Professor in the Information Systems Department at the Autonomous University of Aguascalientes (UAA), Mexico. Dr. Mora holds an M.Sc. in Computer Sciences (Artificial Intelligence area, 1989) from Monterrey Tech (ITESM), and an Eng.D. in Engineering (Systems Engineering area, 2003) from the National Autonomous University of Mexico (UNAM). He has published over 90 research papers in international top conferences, research books, and JCR indexed journals such as IEEE-TSMC, European Journal of Operational Research, Int. Journal of Information Management, Engineering Management, Int. J. of Information Technology and Decision Making, Information Technology for Development, Int. J. in Software Engineering and Knowledge Engineering, Computer Standards & Interfaces, Software Quality Journal, Expert Systems, and Software and Systems Modeling. Dr. Mora is a senior member of ACM (since 2008), an SNI at Level II, and serves in the ERB of several international journals indexed by Emergent Source Citation Index focused on decision-making support systems (DMSS) and IT services systems.
- Fen Wang is a Full Professor in the Information Technology & Administrative Management Department at Central Washington University (CWU). Before joining CWU, Prof. Wang was an Assistant Professor and Director of the Management Information Systems (MIS) program at the Eastern Nazarene College in Massachusetts. Prof. Wang holds a B.S. in MIS, an M.S., and a Ph.D. in Information Systems from the University of Maryland Baltimore County. Prof. Wang has brought over ten years of professional and research experience in information technology management to her students. Her research focuses on intelligent decision support technologies and E-business strategies. These efforts have resulted in contributions to the applied literature on information technologies that have been well-received in the research community. Prof. Wang has published over thirty papers in internationally-circulated journals and book series, including the International Journal of E-Business Research (IJEBR), International Journal of Decision Support System Technology (IJDSST), Intelligent Decision Technologies (IDT), Information Technology for Development (ITFD), and the Encyclopedia of E-Commerce, E-Government and Mobile Commerce. Prof. Wang has also consulted for a variety of public and private organizations on IT management and applications.
- Prof. Dr. Jorge Marx Gómez studied Computer Engineering and Industrial Engineering at the University of Applied Sciences Berlin (Technische Fachhochschule Berlin). He was a lecturer and researcher at the Otto-von-Guericke-Universität Magdeburg (Germany) where he also obtained a Ph.D. degree in Business Information Systems with the work Computer-based Approaches to Forecast Returns of Scrapped Products to Recycling. From 2002 till 2003 he was a visiting professor for Business Informatics at the Technical University of Clausthal (TU Clausthal, Germany). In 2004 he received his habilitation for the work Automated Environmental Reporting through Material Flow Networks at the Ottovon-Guericke-Universität Magdeburg. In 2005 he became a full professor and chair of Business Information Systems at the Carl von Ossietzky University Oldenburg (Germany). His research interests include Very Large Business Applications, Business Information Systems, Federated ERP-Systems, Business Intelligence, Data Warehousing, Interoperability, and Environmental Management Information Systems.

Hector A. Duran-Limon Ph.D., is currently a full Professor at the Information Systems • Department, University of Guadalajara, Mexico. He completed a Ph.D. at Lancaster University, England in 2002. Following this, he was a post-doctoral researcher until December 2003. He obtained an IBM Faculty award in 2008. His research interests include Cloud Computing and High-Performance Computing (HPC). He is also interested in Software Architecture, Software Product Lines, and Component-based Development. In 2006, He was invited to create a Ph.D. program in Information Technologies for the University of Guadalajara, becoming a member of the Academic Council. Contact him at Systems Department, University the Information of Guadalajara, Mexico; hduran@cucea.udg.mx.