

# Alejandro CASTELLANOS ALVAREZ

## Software Engineer | Application Developer IBM

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in [linkedin.com/in/alejandro-castellanos-alvarez-686359171](https://www.linkedin.com/in/alejandro-castellanos-alvarez-686359171)   📍 Tamaulipas, Mexico

Focused on developing and solving mathematical models; I enjoy working in teams with people from different backgrounds and especially interested in machine learning and parallel programming.

## 🎓 EDUCATION

- 2021   **Master in Computer Science**, Tecnológico Nacional de México Campus Cd. Madero, Tamaulipas, México.  
2018   **Engineering in Computer Systems**, Instituto Tecnológico de Cd. Madero, Tamaulipas, México.

## 💼 EXPERIENCE

- Present** | **Application Developer, IBM,**  
**November 2021** | Functional analyst, focused on the design and development of solutions for the industry with Agile methodology.  
Java   Oracle PL/SQL   Spring Boot   IVR   Eclipse   Maven   Git
- November 2021** | **Application Developer, ACCENTURE,**  
**July 2021** | Development, design and maintenance of technologies in line with business strategy.  
➤ Maintenance and updating of web components.  
➤ Functional analysis of requirements.  
Java   Oracle PL/SQL   WebDynpro
- August 2019** | **Intern, LANTI-TECNM,**  
**February 2018** | Configuration and adaptation of Institutional Repository for Tecnológico Nacional de México.  
➤ Adaptation and configuration of Dspace v6.3  
➤ Development of the Rest Api for repository statistics consumption.  
➤ Adaptation and configuration of the OAI interface.  
dSPACE   JavaServer Pages (JSP)   Flask   Java   Tomcat   Python

## ☰ SKILLS

- Programming**   Java (JEE) , C/C++ , R, Python , JavaScript , HTML5 , SQL  
**Frameworks**   Spring Boot, Vaadin, JavaFX, dSpace, Flask, WebDynpro, OpenMPI, Weka  
**Database**   Oracle Database, MySQL, PostgreSQL, MongoDB.  
**IDE**   IntelliJ Idea, Eclipse , Visual Studio Code.  
**Middleware**   Nginx, JBoss , Apache Tomcat.  
**Office automation**   LaTeX, Pack Office(Word, Excel, PowerPoint).

## </> LANGUAGES

Spanish   ● ● ● ● ●  
English   ● ● ● ○ ○

## + STRENGTHS

- Autodidact
- Analytical
- Responsibility
- Abstract thinking
- Teamwork

## CERTIFICATIONS

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- 2022 AWS Certified Cloud Practitioner, Amazon Web Services Training and Certification, <https://www.credly.com/badges/d137c622-6e35-4373-8e9e-7787a0974597>)
- 2022 Enterprise Design Thinking Practitioner, IBM, <https://www.credly.com/badges/8068a3f0-f58d-40f2-8910-90931731dbdf>
- 2022 IBM Agile Explorer, IBM, <https://www.credly.com/badges/e3d18cec-6555-400a-9d49-7abcab309d47>

## PUBLICATIONS

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- 2022 Castellanos A, Cruz-Reyes L, Fernández E, Rivera G, Gomez-Santillan C, Rangel-Valdez N. Hybridisation of Swarm Intelligence Algorithms with Multi-Criteria Ordinal Classification: A Strategy to Address Many-Objective Optimisation. *Mathematics*. 2022; 10(3):322.[doi.org/10.3390/math10030322](https://doi.org/10.3390/math10030322)
- 2021 Castellanos-Alvarez A, Cruz-Reyes L, Fernandez E, Rangel-Valdez N, Gómez-Santillán C, Fraire H, Brambila-Hernández JA. A Method for Integration of Preferences to a Multi-Objective Evolutionary Algorithm Using Ordinal Multi-Criteria Classification. *Mathematical and Computational Applications*. 2021; 26(2):27. [doi.org/10.3390/mca26020027](https://doi.org/10.3390/mca26020027)

## CONFERENCES

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- 2021 Alejandro Castellanos-Alvarez, Laura Cruz, Hector Joaquin Fraire Huacuja, Claudia Gomez, Jose Alfredo Brambila-Hernandez, Nelson Rangel-Valdez and Jesus M. Velasquez-Bermudez. A multi-objective optimization method to estimate parameters of the COVID SEIMR/R-S model with a case study of Mexico. *Numerical and Evolutionary Optimization* September 08-10, 2021