

Carlos López Roa

Technologist

contact

Mobile 442-359-7980
carlos.lopez.roa@gmail.com
Github : mr3m

languages

Spanish / Native
English / TOEFL
German / A1

programming

C, R
Java, Python
Shell-Bash
SQL, XML
CSS3 & HTML5
JavaScript
Matlab
Mathematica
L^AT_EX, BibT_EX

mathematical expertise

Complex & real analysis
Linear algebra
Analytical geometry
Multivariable calculus
Superior algebra
Ordinary & Partial
Differential Equations
Statistics & Probability
Functional analysis
Finite element analysis
Wavelet Analysis
Dynamical Systems
Neural networks design

interests

Data mining, Mathematical modeling, Big Data analytics, Computer simulation, Cloud computing, Internet of things, Sensorgrid, Artificial Intelligence, Machine Learning, Web Crawling, Embedded systems

education

09/15-08/17 **M.Sc.** Data Mining and Knowledge Management Université Lumière Lyon 2, Lyon, Fra

10/09-04/14 **B.Sc.** Technology Center of applied Physics and advanced Technology, UNAM, Qro, Mex
Bubble dynamics subject to novel shockwave: High speed video
summa cum laude, top 3 best GPA 2011, 2012, P.L. 08807255

experience

02/15-08/15 **Dattlas - Kio Networks** Data Scientist Jr
Keywords: Big Data, SAP HANA, Business Intelligence
Projects: Televisa - Big Data

06/14-01/15 **Prosciana** Director of Technologic development
Keywords: Big Data, Cloud Computing, Internet of Things, Web Services
Projects: K13 | Alarmex | TopCar | Ultralam | Moringa | Lehvi | deconb | Britcan

01/14-06/14 **Vintalent Solutions** Data miner
Keywords: Web Services, Data Mining

01/13-07/13 **National Autonomous University of Mexico, Campus Juriquilla** Teacher assistant
Keywords: Classical Mechanics, Electronics

08/12-07/13 **G&C Consultoría** Statistical programmer
Keywords: Web Services, Statistical Analysis
Projects: UAQ Chemistry | UAQ Nutrition | UAQ Engineering | UAQ Psychology

technical skills

Extensive ability in mathematical modelling, numerical simulations and computer assisted symbolic calculus.

Analogical electronics abilities. Microcontroller programming and implementation.

Big Data Analytics using Apache Hadoop and SAP HANA

Embedded Systems: Software and hardware development with Microchip PIC family, Arduino platform, Raspberry Pi and Texas Instrument Launchpad

Most common productivity tools on Windows, OS X, Linux desktop and Linux servers

Expertise running multiple instances and services in the Amazon Web Services cloud: EC2, RDS, S3, DynamoDB, EMR, SES

extra courses

- II Multidisciplinary mathematical Workshop on applications to other sciences, Mathematics Institute, UNAM, Juriquilla, Querétaro, 24 hours, 2014
- IX Mathematics Summer School, Mathematics Institute, UNAM, Cuernavaca, Morelos. 40 hours, June 2012
- XXVII Víctor Neumann-Lara Colloquium in Graph and Combinatorial Theory and its Applications, Tlaxcala, Tlax., 32 hours, March 2012
- Mathematics Summer School in Querétaro, Center for Innovation in Mathematics, Querétaro, Qro, 54 hours, June 2011

social service

Research internship in the Shockwave Laboratory in CFATA-UNAM, 520 hrs.

2014 Gustavo Baz Prada award for the most impacting social service

publications

- López-Roa, C., Perez, L.E., Pedroza, J.C., Icaza, M. de, Castano, V.M.: *Mitos y realidades sobre la situación de los recursos hídricos*, (2010). A.M Newspaper., Section *Ciencia hoy*, April 24, 2010.
- Perez-Margay, L.E., López-Roa, C., Pedroza, J.C., Icaza, M. de, Castano, V.M.: *Optimización y aprovechamiento de los recursos hídricos*. Memorias del V Coloquio en Tecnología. p. 207. Universidad Nacional Autónoma de México, (2010). ISBN: 978-607-02-1439-4
- López-Roa, C., Aragón, J.L.: *Programación de Álgebras de Clifford en Mathematica*. Memorias del sexto coloquio de Tecnología. Universidad Nacional Autónoma de México (2012). ISBN: 978-607-02-3655-6
- López-Roa, C., Vargas, A.: *Control robusto de biorreactores basado en modos deslizantes*. Memorias del octavo coloquio de Tecnología. Universidad Nacional Autónoma de México (2012). ISBN: 978-607-02-3654-9
- López-Roa, C., Santamaría-Holek, I.: *Análisis dinámico del oscilador salino*. Memorias del noveno coloquio de Tecnología. p. 105. Universidad Nacional Autónoma de México. (2012). ISBN: 978-607-02-3943-4

references

Miguel de Icaza Herrera, PhD. e-mail: icaza@fata.unam.mx;
Tel: 442-2381160

- Researcher in Centro de Física Aplicada y Tecnología Avanzada, UNAM.
- Molecular Engineering in Materials department.