

Leticia Cruz

Computer Scientist

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Education

- 2007–2011 **B.E.**, *Superior School of Computer Sciences*, National Polytechnic Institute.
- 2014–2016 **M.C.S.**, *Applied Mathematics and Systems Research Institute*, National Autonomous University of Mexico.

Jobs

- 2009–2011 **Web and mobile applications Developer**, *GB Mobile*.
Development of web pages, mobile applications and server management.
- 2011–2012 **Social Service School**, *Bank of Mexico*.
Development of user's management. Automated Testing. Trainer of basic programming in Java and automated testing. Migration of Java swing to Java FX.
- 2012–2014 **Web Developer**, *Linio*.
PHP developer, data base management, team leader.
- 2014–2016 **4E Cognition Laboratory Researcher**, *Applied Mathematics and Systems Research Institute*.
Speaker, researcher and collaborator.
- 2015–2017 **High Computing Developer**, *Lufac*.
Development of algorithms. Software Optimization. Server management.
- 2017–2018 **Software Engineer**, *Hal*.
Development of APIs, NLP, product design, Scrum.
- 2018–2019 **Software Engineer**, *Krieger*.
Development of APIs, Django, Flask, Continuous Integration, Unit testing. Integration Testing.
- 2019 - **Software Engineer**, *Konfio*.
- Current Agile methodologies. Development and maintenance of RESTful APIs. Usage of third-party APIs. API Documentation (Swagger). SQL. Unit testing. Integration Testing. Design Patterns. Python Web Frameworks (Django and Flask). ORMs (SQLAlchemy, Peewee, Django). Django/Flask Admin.
- 2019 - **Analysis and Data Visualization**.
- Current Extraction, Transformation, Loading. Statistical Analysis. Infographics. Graphs and interactive graphs.

Technical Skills

Software:

Python	Golang	Octave	DBMS
R	Java	Matlab	NoSQL DBMS
pandas	JavaScript	C/C++	GCP
numpy	PHP	OpenACC	AWS
Elixir	Mathematica	Haskell	

Artificial Intelligence Skills

- Machine Learning.
- Deep Learning.
- Evolutionary Computation.
- Evolutionary Robotics.
- Expert Systems.
- Data Mining.
- Symbolic Artificial Intelligence.

Projects related to Artificial Intelligence techniques

- **Diabetes database analysis:** Prediction of diagnosis, determination of the most relevant characteristics, profile generation, statistical analysis.
- **Machine Learning classification:** Linear regression, logistic regression, neural networks, support vector machines, clustering. Application of these techniques to the prediction of cancer diagnosis, house prices, financial reports, weather.
- **Evolutionary computation:** Optimization of mathematical models using genetic algorithms and genetic programming. Evolution of neural networks to classify images and handwriting. Combinatory and function optimization.

Analysis and Data Visualization (public projects)

- **Interrupción Legal del Embarazo:** Descarga de la Base de Datos abierta. Limpieza de datos y análisis exploratorio. Preguntas a responder. Creación de diversas gráficas. Análisis estadístico. Diseño de infografía.
- **Fútbol Femenil Profesional en México:** Scrapping information. Design and creation of a proprietary data base. Design and creation of typical graphs and interactive graphs.

Certifications

- PCEP - Certified Entry-Level Python Programmer: OpenEDG Python Institute (2019)
- R Programming: Coursera (2017)
- The Data Scientist's Toolbox: Coursera (2017)

Personal Skills

- Quick Learner.
- Able to handle multiple situations at the same time.
- Can manage time effectively.
- Good computer handling skills.
- Self-taught person.
- Application of creativity to solve different problems in different situations.

Areas of Interest

- Data Analysis and Visualization.
- Machine Learning Techniques.
- Learning and Adaptive Systems.
- Cognitive Science.
- Complex and Dynamical Systems.

Events

- 2016 **Attended “The Fifteenth International Conference on the Synthesis and Simulation of Living Systems” at Cancun, Mexico**, Date: 4th-8th July 2016.
Poster presentation entitled: "An Evolutionary Robotic Model for Explicit Agency Recognition".
- 2016 **Attended “GPU Hackathon - Oak Ridge Leadership Computing Facility” at Knoxville, Tennessee**, Date: 1st-3rd November 2016.
Algorithm optimization on GPUs.

Specializations (Coursera)

- 2017 **Data Scientist’s Toolbox**, *Johns Hopkins University*.
- 2017 **R programming**, *Johns Hopkins University*.
- 2017 **Getting and Cleaning Data**, *Johns Hopkins University*.

Languages

English	Intermediate-Advanced	<i>Conversationally fluent</i>
French	Basic	

Declaration

I hereby declare that the above mentioned information is correct up to my knowledge and I bear the responsibility for the correctness of the above mentioned particular.