# Rodrigo Hernández-Mota

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### Experience

#### Professional experience

2016—current **Data Scientist Jr.**, CRABI, Andares Corporativo Acueducto - Zapopan.

The data-science team at Crabi covers two main areas: pricing model and fraud detection.

- System architecture to analyze user behavioral data (sources: auto-telematics, apps, and social media).
- Use generalized linear models to create an insurance pricing model that contemplates user behavior.
- o Propose advanced machine learning methods to enhance pricing and improve fraud
- Simulation and optimization techniques to predict economic variables relevant to the business.

#### Volunteer

2014–2016 **Academic Council**, *Mathematics and Physics department - ITESO*, Tlaquepaque. Administrative and academic tasks concerning the financial engineering management team.

- Advice in the structure of the study framework.
- Creation of the first financial engineering contest on the university.
  - Diffusion of financial engineering concept in the financial and corporate sector in Guadalajara.
  - Contact with professionals in the financial sector.
- Collaborated with the student union.
  - Advice to students and study groups; Tutorials and aid in learning a programming language oriented to finance (Python, R and MATLAB / Octave).

2013–2014 Member of the financial engineering student union, ITESO, Tlaquepaque.

Participated in the formation of the first student union for financial engineering.

2011–2012 **Accounting assistant**, *Victoria Express*, Guadalajara.

Worked as an assistant in the accounting area in Victoria Express hotel.

#### Education

2013–2018 **Bachelor degree in Financial Engineering**, *Instituto tecnológico y de Estudios Superiores de Occidente*, Tlaquepaque, .

Member of the student union (AFIN - SAIFI) and academic council of Financial Engineering.

- International Exchange Program at ESSCA (École supérieure des sciences commerciales d'Angers ) in Angers, France. Foreign studies related to economics and business.
- **Professional Project (1/2)** Financial strategies and pricing using exotic derivatives. ML methods to estimate stock and currency prices.
- **Professional Project (2/2)** Economic variables forecast for IIEG (Institute of Statistic and Geographic Information).
- 2010–2013 Baccalaureate, Centro de Desarrollo Integral Arboledas, Guadalajara, .

Graduated as an outstanding student.

- o 3 years study of French and English language.
- Economic and mathematical background.
- Participated in physics contests as a representative student.
- Short intercultural exchange with the school Lycée Notre Dame de Rezé in Nantes, France.

#### Certificates

- **Big Data**, *University of California San Diego*, Coursera.

Introductory topics regarding big data tech.

- o (2015) Introduction to big data.
- o (2015) Hadoop platform and application framework
- R for Data Science, Datacamp.

Using R as a data science tool.

- o (2016) Introduction to R.
- Programming, Code School.

General programming tools.

- o (2016) Git real
- o (2016) Try Python
- Microsoft Office, Microsoft.

Microsoft specializations.

- o (2010) Microsoft Office Specialist for Office Excel
- o (2010) Microsoft Office Specialist for Office Word

#### Language

Spanish Professional proficiency Primary language
English Professional proficiency TOEFL iBT 104 and TOEFL ITP 620
French Limited proficiency DELF A2

#### Skills

Main programming languages

Python Data science and software development

R Data science

Spark Big data

Full professional proficiency

Full professional proficiency

Professional working proficiency

Scala	Software development	Professional working proficiency
Java	Software development	Professional working proficiency
Git	Distributed Version Control System	Full professional proficiency
MATLAB	Data analysis	Full professional proficiency
Wolfram	Computational Mathematics Limited proficiency	
Cassandra cql	Database	Professional working proficiency
SQL	Database	Professional working proficiency
LaTeX	Writing system	Full professional proficiency
	Featured Skills	
Al	Machine Learning	Professional working proficiency
DS	Data Analysis and visualization	Professional working proficiency
CS	OOP and FP	Professional working proficiency
Finance	Financial Analysis	Professional working proficiency
Finance	Financial Strategies (derivatives)	Professional working proficiency
Finance	Quantitative Trading	Professional working proficiency

## References

 ${\sf Github} \quad \textbf{https://github.com/rhdzmota}$ 

 ${\sf Kaggle \ \ } \textbf{https://www.kaggle.com/rhdzmota}$ 

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