

# José Enrique Vázquez Cervantes

Address: Department of Chemistry at University of North Texas.

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**Goals:** Computational Chemistry for the development of mathematical models to simulate molecules and chemical reactions with industrial applications, chemical processes optimization, as well as renewable and sustainable energy.

## Education:

Aug 2010 - May 2015: Instituto Tecnológico y de Estudios Superiores de Monterrey, Campus Monterrey.  
Career: **Chemistry Bachelor (LCQ)**. GPA: 90/100.

## Languages:

- English (Advanced). TOEFL iBT (2016): 86/120.

## Research Experience:

Ago 2014 - May 2015: **Universidad Autónoma de Nuevo León & Instituto Tecnológico y de Estudios Superiores de Monterrey.**  
Thesis work with: Dr. Víctor Rosas García & Dr. Marcelo Videá Vargas.  
*Computational Determination of Atomic Charges and Lennard-Jones Parameters for the 2-oxazolidinone fragment of the Linezolid Antituberculosis Drug.*

## Work Experience:

Aug 2017 - Today **University of North Texas:** Research Assistant at University of North Texas.

May 2016 - Jul 2017 **Didaktron:** Teaching materials developer of basic sciences. Design and development of experiments for the subjects of Chemistry and Mathematics for Elementary, Middle and High School. Furthermore, I impart training to professors for the use of STEM Digital Experimentation Laboratories.

Aug 2015 - Jan 2016 **Alquim:** Attendant of Quality Control Department and assistant in Research and Development Department. I developed a product that allows less distortion in metal pieces subject to quenching.

Apr 2014 - Dec 2014 **Viakem:** Department of Research and Development assistant. I designed and implemented synthetic routes and I developed analytical methods for the identification of different products manufactured by the company. I achieved a 20% in yield improvement in a more efficient synthetic route of a commercial interest fine chemical.

## Volunteering:

Aug 2012 -Dec 2012 **Chemistry Workshop:** Chemistry practices exhibitions were provided to high school students as a way to popularizing this science. A practical manual basis was created to be used as a guide for later volunteers.

Aug 2012 - Dec 2013      **Citizen Social Service in the Project called "Jaquemat"**: High School students were prepared to compete in the Mexican Mathematics Olimpiad in Nuevo León. It was achieved that 15% of the students in the program passed to state round.

#### **Academic Achievements and Scholarships:**

Oct 2015                      ISO 9001:2008 certificate as internal auditor under the ISO 19011:2011 norm given by SPC Consulting Group.

May 2015                      *Outstanding Certificate* in the Chemistry Bachelor Exit Test (EGEL) by CENEVAL National Institution.

Nov 2013                      Acknowledgement as *Agent of Change* by my outstanding performance in the Citizen Social Service in the Project called "Jaquemat".

Aug 2010 - Jan 2015:      *Encouraging to Educational Excellence* by the Tamaulipas State Government representation in Nuevo León.

Aug 2010 - May 2015:      *Academic Talent Scholarship* by ITESM, Monterrey Campus and *Xorge A. Domínguez Scholarship* by the Chemistry Department of ITESM in Monterrey.

#### **Computational Packages:**

- Advance: Linux, LaTeX, VMD, Avogadro, ChemsSketch, Gnuplot, Sigma Plot, GAMESS-US, Orca, Gabedit.
- Intermediate: Python, Minitab, GROMACS, Mercury, Fireworks.

#### **Personal Skills:**

- Interpretation and Data Analysis
- Capability to work under pressure and teamwork.
- Leadership.
- Oral Communication ability.
- Personal and Professional Ethics.

#### **Additional Information:**

Availability to travel. Personal references available upon request.