



## Curriculum Vitae

*Chemical Engineer Bachelor's degree*  
*Name: Carlos Ayrton López Arroyo*  
*Age: 23 years old*  
*Civil Status: Single*  
*Celaya, Guanajuato.*  
*Phone: (461)-1055-946*  
*email: carlos.ayrton.la@gmail.com*

---

### PROFESSIONAL OBJETIVE:

As a graduated Chemical Engineer I want to form part of a work team, where I can develop me in a professional way, so my professional knowledge can make some benefits to their business, to my work team and my own professional development, looking to enhance my knowledge and experiences acquired in separation process (unit operations), chemical analysis and investigation of new methods of operation process, materials and technology.

### PROFESSIONAL EXPERIENCE:

Hutchinson Autopartes México (Cortazar)

**Date:** 21/07/14 – 13/08/14

**Job:** *Software Development*

**Job description:** Job generated with the end of develop a software to register the entrance of the personal operators.

**Achievements:** *Development of a software (clock checker) used on the production lines, with the help of a bars code lector, to register the assistance and the exit of the operator worker with their job's credential with the capacity of export a spreadsheet excel formatted with detailed information about every single operator data.*

Carboquímica BLOCK S.A de C.V. (Salamanca)

**Date:** 14/01/20 – 20/05/20

**Job:** *Production Department Resident*

**Job Description:** *Job created with the end of optimize a separation process of a distillation tower, to reduce the humidity of the products of distillation, to increase the quality of the solvency of the ink solvent or thinner (final product) using process simulation as the test environment,*

**Achievements:** *Humidity reduction of the toxic residue mixture with the end of nuke down the azeotropic interaction of water-n-propanol that was harming the quality of the final product. With the modification of the operation of the distillation tower using techniques of the fractional distillation in continue and semi continue process.*

Carboquímica BLOCK S.A de C.V.

**Start Date:** 20/05/20 – Actual job

**Job:** *Production Engineer*

**Job Description:** *As a second production engineer, my task is to watch the process and generate an action plan in case of any perturbation detected and that compromises the quality of the final product, also in addition to work with toxic residue mixtures with a high percentage of humidity (20%+) with the end of reduce the interaction of the binary and ternary azeotrope using extractive distillation and decantation as primordial methods to delete the maximum possible percentage of alcohols and humidity present on the said mixture. So primary products of high solvency can be generated to make thinner formulations of high quality, also upgrading at the extractor at their maximum efficiency without the need*

of a fresh stream. Also checking the quality of the new methods using process simulation as the first stage testing environment.

**Achievements:** Reduction of the inventory of the toxic residue mixtures with high percentage of humidity to generate products with a maximum humidity of 3.90% following the specifications of the client, generation also a residue stream ready for the correct treatment as water residual, recovering also up to 90% of the extractor substance and a viable economic process.

#### **LABORAL INTERESTED AREAS:**

- Petrochemistry (Refining)
- Materials/Polymers in general
- Sales
- Process

#### **ACADEMIC TRAINING:**

*Chemical Engineer Bachelor's degree with materials specialty*

Time frame: 2015-2020

University: Tecnológico Nacional de México, Instituto Tecnológico de Celaya

#### **COURSES AND DIPLOMAS:**

**Institution:** *Tecnológico Nacional de México en Celaya, Departamento de Ingeniería Química*

**Course name:** *XXX Seminario Internacional de Ingeniería Química*

**Date:** *from 08 to 12 of January 2018*

**Institution:** *CFE*

**Course name:** *Seguridad en actividades con energía eléctrica (Riesgos eléctricos/Clasificación de áreas de riesgo)*

**Date:** *21 of February 2020*

**Institution:** *Salamanca Ayuda Mutua Industrial A.C*

**Course name:** *Prevención, Control y Respuesta a Emergencias*

**Date:** *24 of January 2020*

#### **TECHNIC PROFESSIONAL KNOWLEDGE:**

LANGUAGES: *English: speaking 75%, writing 75%, translation, 75% (B1 Level)*

*German: speaking 35%, writing 35%, translation, 35% (A1.2 Level)*

#### **COMPUTING SOFTWARE:**

- Microsoft Office 365 (Word, Excel, PowerPoint, Access, Visio, OneDrive).
- Microsoft Visual Studio.
- GSuite (Google Suite).
- ASPEN ONE (HYSYS and PLUS)
- Programming Language: C, Python, MATLAB, Mathcad y LUA scripting.
- Software development for process simulation ([Python](#) y [MATLAB](#))

CV in real time available here: [https://dev.carlosayrton.com/CV\\_CARLOS-AYRTON-ENG.pdf](https://dev.carlosayrton.com/CV_CARLOS-AYRTON-ENG.pdf)