

Cruz Elkin

MASTER'S STUDENT

🏠 helq.github.io | 📱 [helq](#) | Bogotá, Colombia

Education

UNAL (Universidad Nacional de Colombia)

Bogotá, Colombia

M.S. IN COMPUTER ENGINEERING (INGENIERÍA DE SISTEMAS Y COMPUTACIÓN)

Finishing date: First Semester of 2019

- Thesis' title: Design and Implementation of Type Checking Algorithm for Shapes of Tensors in Python
- Advisors: *Fabio Gonzalez*, and *Felipe Restrepo Calle*
- Makes part of the research groups: *MindLab*, and *PLaS*
- Excellent GPA of 4.7 (in a range from 0.0 to 5.0, where 3.5 is the minimum passing grade)

UNAL (Universidad Nacional de Colombia)

Bogotá, Colombia

B.S. IN COMPUTER ENGINEERING (INGENIERÍA DE SISTEMAS Y COMPUTACIÓN)

Graduation date: Mar. 2017

- Passionate on mathy and theoretical subjects (in the intesection between Computer Science, Engineering, Maths and Human Languages, like algorithms and lambda calculus).
- Took part in "Programa de Mejores Promedios" (Best GPAs Program) at UNAL, which offered the oportunity to learn German
- Got excellent markings from the start and graduated with a GPA of 4.4 (in a range from 0.0 to 5.0, where 3.0 is the minimum passing grade)

Leibniz Universität Hannover

Hannover, Germany

EXCHANGE STUDIES - 1 YEAR

Sep. 2014 - Aug. 2015

- Studied, among other subjects, "Parametric Complexity", "Logic and Formal Systems", and "Complexity and Logic"
- Worked in a project at the "Institut für Mess- und Regelungstechnik," to process the output of Texas Instrument measuring device into Matlab with a middleman piece of code written in C
- Improved English and German communication skills
- Got excellent markings 1.6 (where 1 is the maximum, 5 the minimum, and 4 is the minimum passing grade)

Skills

Programming (Seasoned)	In decreasing order of skill: <i>Python</i> , <i>Haskell</i> , and C++(-14)
Programming (Some Experience)	Javascript, C, Assembly, Scheme, Java, Bash, Ruby, and many others
Web	basic HTML5 and CSS
(Spoken) Languages	<i>Spanish</i> (L1), <i>English</i> (C1 - IELTS 7.0), German (Intermediate)
Linux Administrator	ArchLinux, Debian
Frameworks and tools	Lately: Python projects, NumPy, Tensorflow (python and Haskell). Past: CMake, Qt

Experience

UNAL - Faculty of Engineering

TEACHING ASSISTANT / LECTURER

Feb. 2018 - Exp. Dec. 2018

- Teaching Intro to Programming in C++
- Writing an open access book in the spirit of "The little Schemer" (available in github.com/helq/the-little-cpppler-book)

UNAL - Department of Chemistry

RESEARCH STAFF

Feb. 2017 - Jan. 2018

- Developed two tools to help in the study of the phenomenon of Homochirality: ChemKinLator (C++-14) and Listanalchem (Python) (both available at gitlab.com/homochirality)
- Co-author of paper: Montoya, Juan, Carolina Mejía Moreno, Rubén D Bourdón, Elkin Cruz, and Jesús Ágreda. "On the Stability Analysis of Chiral Networks and the Emergence of Homochirality." MATCH Communications in Mathematical and in Computer Chemistry 80, no. 2 (January 24, 2018): 311–44.

Extracurricular Activity

HOBBIES

- I am passionate about learning new languages (human and computer) and stuff about them
- I like to learn new things, may it be computers, history, maths, the sciences, dance, music, ... Just like any other healthy person a not a spider or panda