



# Nelson Alejandro Portilla Herrera

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## *curriculum vitae*

### About

Software Engineer with master's degree in Computer Science focused on data science area. I have more than 4 years of experience developing Machine Learning, Data Engineering and Information Extraction projects. I specialize in Data Bases and have a high level of knowledge in Data Warehousing, ETL and Data Visualization. I have worked with BigData technologies like Hadoop, Spark and index engine like ElasticSearch. In recent years I have worked in the health field and I have a high knowledge of Cancer from the perspective of information and I am an expert in data processing for cancer registries. I consider myself as a responsible person, collaborative and willing to learn from new challenges.

### Work Experience

2017 - 2022 **Software Engineer**, *Cali Cancer Registry*.

Support in the information analysis and reporting using a business intelligence approach. Implementation of a structured and unstructured data extraction system for different data sources in bulk. Application of data mining and Machine Learning techniques to develop an automatic cancer diagnosis classifier based on pathology reports.

May-Jul 2017 **Technical Support Engineer**, *The Union for International Cáncer Control (UICC) proyecto CCan 2025*.

Configuration of the RedCap information system on a Linux server. Create the project for the collection of information from different hospitals in Cali and supported the generation of reports.

2015-2017 **Research Assistant**, *Universidad del Valle, Cali*.

Support in the development of an automatic information retrieval system for scientific documents using bigdata technologies.

Address: Calle 72A No. 4AN 77 – Cali – Colombia

📞 Phone: +57 (316) 552 6281 - Birthdate: 28/08/1994

✉ email: [nelson.herrera@correounivalle.edu.co](mailto:nelson.herrera@correounivalle.edu.co)

🌐 [www.linkedin.com/in/nelson-alejandro-portilla-herrera/](http://www.linkedin.com/in/nelson-alejandro-portilla-herrera/)

2015-2016 **Teacher Assistant**, *Universidad del Valle*, Cali.

I helped the students of the Faculty of Engineering with the use of office suites, HTML, basic Linux commands and learning the Python programming language. I provided support to teach classes, help in workshops and review assignments in the Algorithms and Programming course.

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## Education

2018–2021 **Master's degree, Computer Science**, *Universidad del Valle*, Cali, Colombia, .

Thesis: "Information extraction in the Cali Cancer Registry"

2012–2017 **Bachelor's degree, Systems Engineering**, *Universidad del Valle*, Cali, Colombia, .

Thesis: "Software tool for the annotation and search of scientific documents integrating semantic annotation techniques and Big Data tools"

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## Skills

Technologies Python, Java, JavaScript, PHP, SQL, HTML, business intelligence, data warehousing, Data Mining, Machine Learning, Natural Language Processing, Scikit-Learn, Pandas, Django, Qt, Joomla. Big Data tools like Spark, Hadoop, MapReduce and indexers like ElasticSearch and Apache Leucene. Version Control tools like GitHub, GitLab and Bitbucket

communication Teamwork, responsibility and commitment, willingness to learn and academic writing skills

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## Conferences

2021 **International Association of Cancer Registries (IACR)**, *2021 Virtual Conference*, Title: "Machine Learning model for classification of pathology reports written in spanish in a cancer registry".

2021 **Group for Epidemiology and Cancer Registry in Latin Language Countries (GRELL)**, *2021 meeting*, Luxembourg.

Title: "Machine learning Model for information extraction from pathology reports written in Spanish in a Population-based Cancer Registry"

2020 **Research Electronic Data Capture (REDCap) annual conference**, *REDCapCon 2020*, Vanderbilt University.

Title: "Advanced use of HTML and CSS styling templates for boosting navigability of Data Entry Forms"

2019 **North American Association of Central Cancer Registries (NAACCR)**, *NAACCR/IACR Combined Annual Conference*, Canada.

Title: "Using Health Ministry mass notification systems to improving data quality in Cancer Registries"

2019 **North American Association of Central Cancer Registries (NAACCR)**, *NAACCR/IACR Combined Annual Conference*, Canada.

Title: "Development of an innovative secure platform for conducting needs assessments of the availability and quality of cancer care services in cities"

2018 **13th Colombian Conference on Computing(13 CCC)**, Cartagena, Colombia.

Title: "Retrieval information in a Cancer Population Registry. Bibliographic review"

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- 2017 **7th Latin American Conference on Networked and Electronic Media**, Valparaíso, Chile.  
Title: "Semantic annotation and retrieval of scientific documents in a Big Data environment"
- 2017 **12th Colombian Conference on Computing(12 CCC)**, Cali, Colombia.  
Title: "Annotation and semantic search of scientific documents in a Big Data environments"

## Accomplishments

- **Four semestral academic distinctions.**  
Awarded to students with high semestral score in system engineering
- **Thesis evaluated with the highest score.**  
With an evaluation of 5/5 in my systems engineering thesis
- **Best graduated student.**  
Awarded as the best graduate student in systems engineering
- **Most highest score in the IARC conference as the best Latino American work.**
- **Among the 11 finalist in the Enrico Anglezio Prize..**  
The Enrico Anglezio Prize (EAP) is awarded to the best work in oncology and it is supported by the Fondo Elena Moroni
- **Graduated with honors in DS4A program..**  
Data Science for All (DS4A) is a program that offers a unique opportunity to learn data science from the world's foremost experts. Participants receive in-person training and apply AI to real business initiatives at leading technology companies.
- **Belong to Cali Cáncer Registry, a research group with A1 category in Colciencias (highest category).**

## Languages

Ingles Full professional proficiency  
Spanish Native proficiency

## Interests and Activities

- Music, Photography, Football/Soccer, Playing Videogames