

# KEVIN ADRIAN RODRIGUEZ RUIZ

Chemical engineer, software developer

## About me

BSc. in Chemical engineer and MEng. in computing with more than five years of experience in software development.

Self-disciplined and excited about solving life-science problems by using computational approaches. I enjoy making scientific tools more user-friendly and accessible.

## Programming skills

Java, Javascript, Node.js, Python, Amazon Web Services, Git, Reactjs, Spring Framework, Django, PostgreSQL, Scrum, Docker.

## Languages

Spanish (native)  
English (fluent)  
French (basic)

## Contact

Bogotá, Colombia. 111156  
(+57 1) 6698229  
(+57) 3057052399



[karodriguezr@unal.edu.co](mailto:karodriguezr@unal.edu.co)



[LinkedIn profile](#)



[GitHub public repositories](#)

## Interests

Chemical processes simulation, molecule modelling, systems biology, data science, optimization, software development.

## Education

- 2016 - 2019 **M. Eng. in Systems Engineering and Computing**  
Universidad Nacional de Colombia (Colombia)
- 2018 - 2019 **Exchange Student in the MSc in Advanced Catalysis and Computational Chemistry**  
Universitat de Girona (Spain)
- 2009 - 2015 **Bachelor's degree in Chemical Engineering**  
Universidad Nacional de Colombia (Colombia)

## Short courses

- 2014 **Advanced Separation Operations. Separation Technologies in Biorefineries**  
International Chair of Engineering, Universidad Nacional de Colombia
- 2017 **Introduction to innovation and the use of technology for learning**  
International School, Universidad Nacional de Colombia
- 2014 **Software maintenance, evolution, and re-engineering**  
International Chair of Engineering, Universidad Nacional de Colombia

## Publications

- 2019 **Including toxicity and market availability in a Computer-Aided Molecular Design methodology**  
Master's thesis, Universidad Nacional de Colombia. Institutional repository.

## Academic projects

- + **CAMD.** Master's final work. Computational tool for the design of environment-friendly solvents for liquid-liquid separation by applying Computer Aided Molecular Design (CAMD) techniques. The resulting

program combines multi-objective optimization, group-contribution methods, and databases mining algorithms. Technologies: Java, MongoDB. [↗](#)

- + **ANSEP.** Design and development of *Astrocyte Neuron Simulation Environment Platform*. Web platform for the analysis of genome-scale metabolic models related to the study of neurodegenerative diseases. Technologies: Python, R, Django, Reactjs, Docker, Postgresql. Project funded by the *Pontificia Universidad Javeriana* and the *Administrative Department of Science, Technology and Innovation (Colciencias)*. [↗](#)
- + **Rescurves.** Open source MS Excel Add-in to automate the plotting of three-dimensional diagrams representing the residue curves maps of quaternary systems. Technologies: C#, VSTO Add-ins. [↗](#)

## Employment

**GNB Sudameris Bank** (Feb 2020 - today)

- + **Java developer.** Development of banking web services and APIs. Technologies: Java, Spring Boot, Amazon Web Services.

**Amaris Consulting** (Jul 2019 – 2020 Feb)

- + **Full-stack developer.** Development of web services and user interfaces for the management of insurance policies. Technologies: Node.js, Reactjs, Serverless Framework, Amazon Web Services.

**Pontificia Universidad Javeriana** (Apr 2018 – Dec 2019)

- + **Software developer.** Design and development of a web platform for the study of neurodegenerative diseases through the analysis of genome-scale metabolic models. Technologies: Python, R, Django, Reactjs, Docker, Postgresql.

**Software Colombia SAS** (Jan 2015 – Sept 2018)

- + **Full-Stack developer.** Design and development of a web platform for massive email marketing. Technologies: Java, Spring Framework, Gradle, Amazon Web Services.
- + **Software developer.** Design, development, and support of desktop applications for digitally signing information, encrypting data, and storing files in the cloud. Technologies: Javascript, Java and JavaFX.