



# Daniel Mejía Raigosa

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## About me

I am a talented, excellent self-taught person with lots of attitude for learning, curiosity and passion drive everything that I do, at work and at personal level as well. My formation as a scientist combined with more than 4 years as a freelance programmer, allow me to adopt and impelent novel and creative proposals when dealing with solutions to requirements and challenges. I have a favorable set of social skills, mainly good communication thats the reason I'm eloquent, empathetic, and conciliator, I like to have open and sincere communication channels. One of my convictions is that mutual cooperation can achieve amazing results, I perform well at teamwork and advocate for it, since I like to see my teammates grow and improve, and I look for ways to support them and influence them to be better.

## Academic formation

2017 **Physicist**, *Universidad de Antioquia*, Medellín.

Bachelor on Sciences offered by the Faculty of Exact Sciences, it is focused in formation of professionals capable of doing cutting-edge research and occupy higher education roles.

2005 **Bachiller Académico**, *I.E. La Salle de Campoamor*, Medellín.  
High school.

## Computation and Programming

Linux/Unix **Advanced.**

Integral system administration (users, resources, services, permissions, etc.) at Linux operating systems, with emphasis at GNU/Linux Debian distributions and its derivated distributions (Ubutu, Mint,...) I'm used to build packages from source when needed, particularly scientific libraries for simulations and general numerical operations. I handle myself really well with the Bash terminal either local or via SSH

Programming **Advanced.**

Languages I have wide experience doing software development with different langagues and under different paradigms: structured, Object oriented and functional programming.

**Advanced** NodeJS, Go (golang),C, C++, Latex (2 $\epsilon$ ).

**Intermediate** Python(3), shells Sh and Bash.

**Basic** Embedded systems (PIC Microcontrollers, Arduino and compatibles, ESP32, ESP8266, STM32, RaspberryPI).

Carrera 53 # 1 - 08, Interior 302 – Medellín, Colombia

☎ 310 380 9386 • ✉ [danielmejia55@gmail.com](mailto:danielmejia55@gmail.com)

📄 <http://daniel-m.github.io> • 🌐 Daniel-M

## Technologies **Advanced.**

Common technologies involved in the development of backend services and microservice-infracstructures, I've focused mainly in High Available and Heavy load microservices in the cloud

**Advanced** API REST (NodeJS with Express and KoaJS; Python with Flask, Django and Falcon; Go: pure go, reveal, go-chi), Socket.io, Websockets, Redis (in-memory store), Elasticsearch, GIT.

**Intermedite** Ansible, Docker, Docker-Compose, Kubernetes (GCP), API GraphQL (NodeJS via ApolloServer, Python via DjangoGraphQL), MongoDB (Python, Go, NodeJS), PostgreSQL (Python, NodeJS, Go)

**Basic** Nginx, Basic Python Datascience Stack: Numpy, Pandas, Matplotlib, Pytorch, Scikitlearn, OpenCV

## Cloud **Advanced.**

Computing Hands on experience with Cloud platforms, specially with Google Cloud Platform (GCP), Digital Ocean (DO) and Amazon Web Services (AWS) in that order. I'm capable of managing full cloud infrascrtutue at GPC consisting of SQL databases, Kubernetes clusters, Cloud Functions, Firebase, LoadBalancing, Cloud CDNs, and Google App Engine resources with ease. I usually set continuous delivery (CD) pipelines between my source-code forges and cloud-deployed services, so the delivery is always automated and on-time

**Advanced** Google Cloud Platform, Digital Ocean.

**Intermediate** Amazon Web Services, Heroku.

**Basic** IBM.

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## Experience

### Software Developer

2017 – Today **Freelance**, *Coordinator: Santiago Gaviria*, Backend Development - DevOps.

### Research Groups

2010 – 2021 **Grupo de Biofísica**, *Director: Marco A. Giraldo C.*, Facultad de Ciencias Exactas – Universidad de Antioquia, Role: Researcher - Graduated student.

**Marco Antonio Giraldo Cadavid.**

**Phone:** (4)219 56 30.

**E-mail:** mantonio.giraldo@udea.edu.co

**Address:** Calle 67 # 53 - 108 – Bloque 6, oficina 431 – Medellín

2011 – 2021 **Grupo de Fisiología y Bioquímica PHYSIS**, *Director: Juan Camilo Calderón V.*, Facultad de Medicina – Universidad de Antioquia, Role: Researcher - Graduated student.

**Juan Camilo Calderón Vélez.**

**Phone:** (4)219 60 30.

**E-mail:** jcalderonv00@yahoo.com

**Address:** Carrera 51D # 62 - 29 – Medellín

### Research Projects

2012 – 2013 **Undergraduate Thesis**, “*Diseño y modelación in silico de la vía de señalización de CDK5 involucrada en la hiperfosforilación de  $\tau$* ”, Escuela de Microbiología y Bionálisis – Universidad de Antioquia, Grupo de Neurociencias de Antioquia, Role: Advice and Simulations.

Presented by: **Alejandro Uribe Arias.**

**E-mail:** uribealej@gmail.com

**Asesor:** MSc. John Fredy Castro Álvarez, Candidato PhD. Del Grupo de Neurociencias de Antioquia (2013)

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2011 – 2017 **Proyecto CODI**, “*Estudio del acoplamiento excitación-contracción en músculo esquelético de mamífero según el tipo de fibra en condiciones de reposo y fatiga*”, Facultad de Medicina – Universidad de Antioquia, Role: Student researcher.  
Under supervision of: **Juan Camilo Calderón Vélez**.  
**Teléfono:** (4)219 60 30.  
**E-mail:** jcalderonv00@yahoo.com

2014 **Project**, “*Diseño y construcción de un Foto-biorreactor de columna de burbujeo con monitoreo de concentración de microalgas en tiempo real*”, Universidad de Antioquia, Role: Research and electronics.

Main researchers: Gerardo Gutierrez G., Daniel Mejía R.

2015 **Project**, *Genomics and Transcriptomics Cooperation between Grupo de Biofísica and el Grupo de Herpetología, Faculty of Exact and Natural Sciences*, Universidad de Antioquia, Role: Software development and simulations, proposed algorithms and implemented them in order to find DNA sequences exploiting HPLC and GRID DNA and HPC (High Performance Computing) infrastructure available. The deliverables performed computations on a fraction of the expected time, algorithms of my own, implementation at C++..

### Academic Exchange

2012 **Venezuela**, *Cellular Physiology Laboratory Internship*, IVIC (Instituto Venezolano de Investigaciones Científicas), Role: Student internship.

Learning experimental protocols in skeletal muscle physiology. Calibration of intracellular fluorescent dyes of *single wavelength* kind.

Internship under the advice of PhD. Carlo Caputo and Msc. Pura Bolaños – IVIC, PhD. Juan Camilo Calderón – Facultad de Medicina - Universidad de Antioquia.

### Given courses

2016 **Tutor**, *IESONLINE*, Medellín, Intensive course on GNU/Linux systems and git version control. Design of course contents on GNU/Linux systems, the linux terminal and general system administration, with an introduction to the use of GIT version control. The course had a length of 8 hours  
**IESONLINE:** departamentotecnico@iesonline.com.co

### Volunteering

2011 – 2013 **Comité Académico**, *Revista de Divulgación Científica Mínima Acción*, Medellín, Non paid. General editing and content moderation of contents for the magazine, caring for the scientific rigor and seriousness

2013 **Cómo detectamos las partículas subatómicas?**, *Biblioteca EPM*, Medellín, Non paid. Activity directed to high-school teachers, consisting in how to build a homemade cosmic-ray detector in the classroom so the students could see subatomic particles. The activity was part of the *Workshop on scientific divulgation on modern physics* offered by the *Mínima Acción*. magazine

2011 **Primer Congreso de Divulgación Científica**, *Universidad de Antioquia*, Medellín, Non paid. Logistics

2010 **IX Juegos Suramericanos**, Medellín, Non paid. Protocol volunteer at different contests

2009 **XIX Campeonato Sudamericano de Mayores y IX Infantil, Junior y Sub 21 de Karate Do**, Medellín, Non paid. Logistics and general volunteering.

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## Others

2009 **Karate-Do Instructor**, *INDER Medellín*, Medellín, Proyecto del Presupuesto Participativo y la Liga Antioqueña de Karate-Do.

Karate-Do instructor for the project: *Clubes de Karate Do y Judo en Guayabal Modelo de Desarrollo Humano y Convivencia Ciudadana*.

**Juan David Cañon Montaño**. Licenciado en Matemáticas y Física de la Universidad de Antioquia. Cinturón Negro 3 Dan en Karate Do. Instructor de Karate Do – Universidad de Antioquia. Instructor de Karate Do – Colegio Mayor de Antioquia. Ex-presidente de la Liga Antioqueña de Karate Do  
**Teléfono:** 300 610 00 32.

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## Languages

Español **Mother tongue.**

English **Fluent.**

Fluent at speaking, writing and reading

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## Congresses and seminars

2013 Course: Curso de Actualización en Genómica, Transcriptómica y Proteómica. 1 y 2 de Octubre de 2013. Corporación de Ciencias Básicas Biomédicas (CBB). Universidad de Antioquia. Medellín. Asistente.

2013 Course: Simulations of the dynamics of biomolecules using the GROMACS package. 4, 5, 11, 12, y 13 de Junio de 2013. Universidad de Antioquia. Medellín. Asistente.