



# ANDRES E. GONZALEZ R.

STUDENT | CREATIVE ENGINEER

## EXPERIENCE/ INTERNSHIP

### BIOMEDICAL ENGINEERING AT THE FH AACHEN 2019 - 2023

Biomedical Engineering (AOS) B.Eng. at the FH Aachen, Campus Jülich

### RESEARCH DEPARTMENT OF ORTHOPEDICS UNIVERSITY CLINIC OF AACHEN 2022

Internship as part of my practical project for my bachelor thesis at the UKA, Aachen site.

### FRESHMAN INSTITUTE OF THE FH AACHEN 2018 - 2019

Pre-university year at the Freshman Institute of the FH Aachen, Campus Geilenkirchen and finally university internship as part of the preparatory year, FH Aachen, campus Jülich

### INTERNSHIP IVC MEDIA INT. 2018

Internship as Videoeditor and Producer at IVC Media int. Caracas, Venezuela.

### EXCHANGE STUDENT PROGRAMM 2017 - 2018

Exchange student programm at the AGB, 50259 Pulheim, Deutschland

### SCHOOL CERTIFICATE 2006 - 2017

School certificate, with science Branch (Bachiller en Ciencias) Institutos Educacionales Asociados, 1080 Caracas, Venezuela

## WORK EXPERIENCE

### STUDENT HELPER RESEARCH DEPARTMENT OF ORTHOPEDICS UNIVERSITY CLINIC OF AACHEN 2022 - 2024

Support in the research department of the orthopedics department of the University Hospital Aachen.

- Development and control of biomechanical test benches using versatile skills such as 3D printing, integration of microcontrollers, various motors, CAD modeling and programming in Python (mainly a control GUI) and C. This multidisciplinary approach optimized the performance and reliability of the test rigs for various endo- and exo-prostheses.

### STUDENT HELPER NUCLEAR PHYSICS LABORATORY 2019 - 2022

Support in the nuclear physics laboratory of the FH Aachen Campus Jülich Department of Energy Technology.

- Supervised internships, ensuring smooth workflow and effective learning experiences for students.
- Utilized LabView to manage and control instrumentation and setups, contributing to the efficiency and accuracy of data acquisition in the lab.
- Utilized MySQL and HTML to develop and manage a comprehensive database for the inventory of nuclear samples. The database, which includes images, supports various functions such as sorting by current nuclear activity, automatic alerts for expired samples, and seamless creation of official inventory documentation.
- Performing Linux-based numerical simulations in medical imaging and radiotherapy software, in particular Gate 9, thus supporting ongoing research in the field of advanced medical technologies.

### STUDENT HELPER FRESHMAN INSTITUTE 2019 - 2023

Support at the Freshman Institute at FH Aachen in Geilenkirchen.

- Planning and organizing events and activities aimed at both students and the general public to promote engagement and a sense of community within the institution.
- Conceived and developed compelling media content to promote the institute and its activities to raise awareness and encourage participation from the public and students.

## SKILLS

### SPANISCH



### ENGLISCH



### DEUTSCH



### ADOBE SUITE



### PYTHON



### HTML/MY SQL



### LAB VIEW



### MICROSOFT SUITE



### JAVA/JAVASCRIPT



### C#/C++ (ARDUINO)



### CAD (AUTODESK INVENTOR)



### 3D PRINTING



### UNITY ENGINE



### TENSORFLOW



## CARRIER HIGHLIGHTS

### Bachelor thesis:

*Development of 3D-Printed Bionic Hand with Visual and Myoelectrical Control Mechanisms and Enhanced Dexterity*

## PROOFS OF LANGUAGE

### TestDaF:

*Leseverstehen TDN: 4*

*Hörverstehen TDN: 5*

*Schriftlicher Ausdruck TDN: 3*

*Mündlicher Ausdruck TDN: 5*

**SAT (Englisch):** 1220 of 1600.

**TOEFL (Englisch):** 103 of 120.



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