

ANDREA CAROLINA NAVARRO ZAGARRA

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SUMMARY

- Mechatronics Engineer with 3+ years' experience as a High School teacher in the areas of technology, robotics, programming, and electronics.
- Design of the logo and identity manual, and currently collaborating in the front-end web development of a law firm.
- Design of a control system for the pyrolysis reactor acquired by the research group of the Mechanical Engineering Division of the University of Guanajuato, making use of control techniques to improve response times and the efficiency of the conversion process of plastic residues in liquid hydrocarbons.
- Control of a robotic arm by implementing inverse kinematics to draw geometric figures using Arduino Mega and MATLAB.

EDUCATION

Bachelor's degree in Graphic Design

2019-Present

La Salle College International (LCI), Barranquilla, Colombia.

Bachelor's degree in Mechatronics Engineering

2013-2019

Universidad Santo Tomás (USTA), Bucaramanga, Colombia.

SKILLS

- Bilingual (Spanish and English)
- SCRUM
- Quick Learner
- Leadership
- Decision Maker
- Accurate and Efficient
- Microsoft Office 365 Suite
- Graphic Design
- Adobe Creative Cloud tools
- C++, MATLAB, HTML, CSS, JS, Arduino, ladder, LabVIEW, Proteus, LaTeX.
- SolidWorks, Blender.

WORK EXPERIENCE

COMPUTERS AND TECHNOLOGY TEACHER

August 2018-Present

COMPAÑÍA DE JESÚS, COLEGIO SAN JOSÉ DE BARRANQUILLA

- Direction of the Robotics Lab. (instrumentation and computer equipment).
- Execution of planning, guides, curriculum in technology and robotics.
- Support in the use of the institution's virtual platforms.
- Guide a group of students in the V National High School Programming Contest 2021.

ROBOTICS COACH

August 2018-Present

LOYOLA'S SCHOOL, BARRANQUILLA COLOMBIA

Guide students in:

- Design of CAD mechanical parts for robots building.
- Block programming and C++ for robot automation.
- Writing, layout and drafting of engineering books.

Participation in:

- National VEX IQ Robotics Tournament, Middle School category, Medellín, Colombia (1st place, Excellence Award).
- National VEX EDR Robotics Tournament, High School category, Medellín, Colombia (4th place).
- VEX IQ Robotics World Championship, Middle School category, Kentucky, USA (3rd and 5th place in division).

ROBOTICS COACH

April 2019

FUNDACIÓN COLEGIO ALBANIA, GUAJIRA, COLOMBIA

- Teaching in basic principles of transmission mechanisms (pulleys and gears).
- Teaching LEGO MINDSTORMS EV3 programming.

ADDITIONAL TRAINING

- **Web Development Course**, Codecademy, 2020 - Present.
- **English score: 120**, Duolingo English Test, 2020.
- **Scrum Fundamentals Certified**, SCRUM study, 2020.
- **Research Internship, Mechatronics Engineering**, Universidad de Guanajuato (UGTO), Salamanca, Guanajuato, México, I-2018.
- **MATLAB**, by the Guanajuato Beta Theta student chapter of the Pi Tau Sigma Honor Fraternity in Mechanical Engineering, Universidad de Guanajuato, Salamanca, Mexico 2018.
- **Academic Exchange, Mechatronics Engineering**, Universidad Autónoma Metropolitana (UNAM), Ciudad de México, México, I-2017.
- **Computer-aided basic design of textile products (OPTITEX)**, SENA, Colombia 2017.
- **V International Congress of Mechatronics and Automation Engineering**, Universidad Santo Tomás, Bucaramanga, October 2016.

AWARDS

- **Plaque of Honor, Mechatronics Engineering School (USTA)**
Plaque awarded for obtaining the highest average (4.2) in the Mechatronics Engineering school during the entire career, May 25, 2018.
- **Academic Exchange Scholarship, Engineering Division (UAM)** VIII Academic Semester, January 2017.
- **Academic Merit Award, Mechatronics Engineering School (USTA)**
Student scholarship granted during semesters III to X, for obtaining the highest academic average of the school, II-2014 to I-2018.