

# ALEXANDER IMMANUEL GOERKE ZAMORA

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## SUMMARY

Industrial Electronics and Automation Engineering student at Universitat Politècnica de València, currently completing an Erasmus+ exchange at the Technical University of Denmark (DTU) to take on new challenges and broaden academic and professional opportunities. Strong technical interest in electronics, robotics, automation and digital control, combined with leadership, teamwork and clear communication skills. Known for responsibility, initiative and a hands-on problem-solving mindset, supported by experience in customer-facing roles and private tutoring. Highly motivated to continue learning and applying engineering principles to real-world challenges.

## EXPERIENCE

### LEROY MERLIN

Valencia, Spain

Summer 2023

#### *Customer Service & Sales Assistant*

- Delivered technical product guidance to customers, identifying needs and recommending efficient solutions in hardware, tools and home-improvement systems.
- Managed inventory workflows and ensured stock accuracy, improving product availability and store organization.
- Handled high-pressure situations during peak hours, demonstrating adaptability, rapid problem-solving and conflict resolution.
- Strengthened communication and teamwork by coordinating daily tasks with multidisciplinary teams.

### PRIVATE TUTORING

Valencia, Spain

2022 – Present

#### *Maths, Physics & Chemistry Tutor*

- Provided one-to-one instruction in mathematics, physics and chemistry for students across all secondary school levels, adapting explanations to different learning styles.
- Designed customized study plans to address conceptual gaps, improving students' performance and confidence in technical subjects.
- Developed strong communication, leadership and mentoring skills through continuous interaction with students and families.
- Applied structured problem-solving approaches to help students tackle complex scientific and mathematical challenges step-by-step.

### RESTAURANT WORK

Valencia, Spain

Summer 2024–2025

#### *Waiter*

- Managed high-demand customer interactions with professionalism, multitasking between service, orders and coordination with the kitchen team.
- Strengthened interpersonal, communication and leadership abilities by ensuring positive customer experiences under pressure.
- Demonstrated responsibility, discipline and reliability in a fast-paced environment requiring precision and teamwork.

## TECHNICAL SKILLS

- Mechatronics Engineering:** Digital Control, Robotics, Electronic Circuit Design, Sensors and Actuators, Mechanical Systems Analysis, Mechatronic System Integration, Signal Processing, Data Analysis for Engineering.
- Programming:** Python, C, MATLAB, HTML/CSS, Arduino
- Design:** AutoCAD, SolidWorks, RadStudio, Proteus, Multisim, OrCAD
- Tools:** Git, VSCode, LaTeX, ChatGPT

## EDUCATION

### UNIVERSITAT POLITÈCNICA DE VALÈNCIA (UPV)

Valencia, Spain

2022 – Present

#### *B.Sc. Industrial Electronics and Automation Engineering*

- Coursework includes: Electronics, Control Systems, Robotics, Automation, Circuit Theory.

### TECHNICAL UNIVERSITY OF DENMARK (DTU)

Lyngby, Denmark

2025 – Present

#### *Erasmus+ Exchange Program*

- Coursework: Robotics, Digital Control, Deep Learning, Business Analytics, Business Studies.
- Developed strong teamwork and project-based engineering skills in an international environment.

## AWARDS & CERTIFICATIONS

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### SCIENCE PRIZE WINNER

- Awarded the Science Prize at Iale International School.
- Recommended by teachers to work as a private tutor due to academic performance.

Iale International School

ADVANCED ENGLISH (C1)	Campus Study Centre	2024
GERMAN LANGUAGE COURSE (A2)	Centro Alemán	2025
WEB PROGRAMMING (HTML, CSS, JAVASCRIPT)	Online	2024
ENERGY GENERATION AND STORAGE SYSTEMS: HYDROGEN AND BATTERY HYBRIDIZATION		CFP-UPV
2024		

## PROJECTS

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### ROBOTICS, DTU

2025

#### *Robotics and Control Systems Project*

- Built a vision-guided 4-DOF robot able to detect objects, convert pixel coordinates to world space, and reach them using inverse kinematics.
- Implemented camera calibration, HSV segmentation, and smooth joint-space motion control with Dynamixel servos.

### DIGITAL CONTROL, DTU

2025

#### *Control Systems Project*

- Designed and implemented PI/PD controllers and sensor fusion for a differential-drive robot, validated in Simulink and deployed on a Teensy 4.1.

### DEEP LEARNING, DTU

2025

#### *Neural Network Project*

- Built and trained a physics-informed graph neural network (PaiNN) for molecular property prediction using QM9 and MD17 datasets.

## ADDITIONAL INFORMATION

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- Practical experience in mechanics, car and boat repair, and home renovation.
- Skilled in the use of hand and power tools; strong manual and technical abilities.
- **Volunteering:** Red Cross volunteering and participation in event planning.
- **Interests:** I enjoy creating and experimenting with new ideas, staying physically active, and continuously learning new skills. My interests include practicing a wide range of sports such as rugby, basketball, salsa dancing, skiing (snow and water), hiking, gym training and endurance challenges, as well as traveling, discovering new cultures, and spending quality time with family and friends.