PERSONAL INFORMATION

Carlos Alejandro Perez Garcia

📍 Italy

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Sex Male | Date of birth 05/10/1992 | Nationality Cuban

PERSONAL STATEMENT

PhD Student, University of Bologna

WORK EXPERIENCE

Nov 2021

PhD in Agricultural, Environmental, Food Science and Technology

Alma Mater Studiorum, Università di Bologna https://www.unibo.it/it
Department of Agricultural and Food Science

Supervisor: prof. Stefano Benni.

- Research Topic:
  - Development of Smart Systems for livestock farming within the framework of the projects RES4LIFE about building technologies to improve energy efficiency.

  Business or sector Educational Institution

September 2016 – Nov 2021

Assistant Professor and Researcher

Universidad Central "Marta Abreu" de Las Villas (UCLV). Km 5 ½ Camajuaní St., Santa Clara, Villa Clara, Cuba, www.uclv.edu.cu

Faculty of Electric Engineering

Department of Automation and Computational Systems

Member of the GARP (Group of Automation Robotics and Perception) research group

- Research Topic:
  - Geographic Information System for the Application of Precision Agriculture in Sugarcane.
  - Planning tasks Variable Rate Application in Case IH Patriot 250 Sprayer.
  - Configuration and exploitation of yield monitor of sugarcane harvester Case IH A8000.
  - Autonomous Systems. Develop of fails-save and fault-tolerance systems

- Taught Subjects:
  - Computing Introduction/ Electric Engineering/1st year/ (course 2017-2018)
  - Simulation (MATLAB - Software)/ Electric Engineering/2nd year/ (course 2017-2018)
  - Control Engineering I/ Automatic Engineering/4th year/ (course 2018-2019 and 2019-2020)
  - Control Engineering II/ Automatic Engineering/4th year/ (course 2018-2019)
  - Software tools for control purpose/ Automatic Engineering/4th year/ (course 2018-2019)

Business or sector Educational Institution

EDUCATION AND TRAINING

November 2021

PhD Program "Agricultural, environmental and Food Science and Technology"

Alma Mater Studiorum, University of Bologna, Italy

Dipartimento di Scienze e Tecnologie Agro-Alimentari

(DISTAL, Università di Bologna)

- PhD in 37° Ciclo del Corso di Scienze e Tecnologie Agrarie, Ambientali e Alimentari (STAAA)

December 2020	**Online workshop "Geographical information systems" in the frame of the international project: Diversifying Cropping Systems**

Supported by the German Academic Exchange Service (DAAD)

- Geographical information systems (Ralf Bill, Univ. Rostock)
- Remote sensing (Görres Grenzdörffer, Univ. Rostock)

September 2019 — Scholarship for Master in Autonomous Systems Engineering

Hochschule Heilbronn, Germany

- Autonomous Systems: Path Planning and Control
- Image Processing

March 2019 — Master Thesis of Automation Engineer

Universidad Central "Marta Abreu" de Las Villas, Cuba

- Thesis - Title: Geographic Information System for application of advanced technics of crops in sugarcane

January-July 2018 — Grade Thesis Tutor (Title: Geographic Information System for Precision Agriculture in Sugarcane)

Universidad Central "Marta Abreu" de Las Villas, Cuba

June 2018 — International Convention and Exposition of the Cuban Industry "Cubaindustria 2018"

Havana, Cuba
- Exposition of the investigation

February 2018 — UCI (University of Informatics Sciences): International Winter School

Havana, Cuba
- Course on Geographic Information Systems

February 2017- July 2018 — Postgraduate in Control and Robotic

Universidad Central "Marta Abreu" de Las Villas, Cuba

- Advanced Control Theory
- Advanced Process Control Topics
- Robotics
- Control and Intelligent Identification of Systems.
- Regulated Electric Actuations.
- Mobile robot control systems.
- Computer vision

January-July 2017 — Grade Thesis Tutor (Title: Methodology for the creation of reports of harvest of Case-IH A8000 with SMS Advanced)

Universidad Central "Marta Abreu" de Las Villas, Cuba

July 2018 — UCI (University of Informatics Sciences): International Summer School.

Havana, Cuba
- Course of Development of Geographic Information Systems with free technologies

November 2016 – April 2017 — Postgraduate in Automation

Universidad Central "Marta Abreu" de Las Villas, Cuba
- Advanced Mathematics
- Software Engineering.
- Social Problems of Science
- Systems Identifications
- Digital Control
- Information Culture
- Applied Instrumentation

September 2016 - January 2017 — Postgraduate of Pedagogical Training for University Professors

Universidad Central "Marta Abreu" de Las Villas, Cuba
- Current problems of Higher Education Pedagogy.

- Didactic of Higher Education.
- Didactic Workshops.
- National Formation and Ideology of the Revolution: History and Thought.
- Introduction to Economics

October 2016   ### Course of Nonlinear Controls: Analysis and Design (by James H. Taylor)

Universidad Central "Marta Abreu" de Las Villas, Cuba
- Describing Functions
- MATLAB Tools for Linear and Nonlinear System Stability Theorem Implementation
- Absolute Stability of Nonlinear Systems
- Digital Simulation of Stochastic Nonlinear Systems

September 2016   ### Fundamental Course of Digital Image Processing

Universidad Central "Marta Abreu" de Las Villas , Cuba
- Digital imaging definition
- Subjective Image Perception
- Optical Image Formation
- Mathematical Bases of the Digital Image
- Processing in the Frequency Domain

June 2016   ### Grade Thesis of Automation Engineer

Universidad Central "Marta Abreu" de Las Villas, Cuba
- Thesis - Title: Methodology for the extraction of Harvest Data with Case IH A8000 Case Harvesters

PERSONAL SKILLS

Mother tongue(s)   Spanish

Other language(s)

UNDERSTANDING		SPEAKING		WRITING
Listening	Reading	Spoken interaction	Spoken production	
English				
B1	B1	A2	A2	B1
Local Language School Certificate				
German				
A1	A1	A1	A1	A1
Heilbronn University of Applied Science				

Communication skills
- Good communication skills gained through my experience as part of a team work.
- Excellent contact skills with persons gained through my experience as university professor.
- Excellent friendship skills, due to the daily rose with partners in the different scholarships taken during my studies
- Excellent Respect skills and behavior with co-workers and other persons due to my educational levels obtained at home and schools.

Organizational / managerial skills
- Good at goal setting and meeting goals.
- Leadership (currently responsible for a group of students and thesis tutoring).
- Good skills to problem solving obtained during the university studies and work experience.
- Excellent work organizations skills due to the correct distribution of time to develop multiple tasks at the same time.

Job-related skills
- Excellent skills at teaching due to the postgraduate course in Higher Education Didactic and the continuous learning from the experience professors
- Good skill in research and project development obtained during the development of my grade thesis and Master thesis (still in development)
- Excellent skills at information searching through internet and web navigation

Digital skills

SELF-ASSESSMENT				
Information processing	Communication	Content creation	Safety	Problem solving

Proficient User	Independent User	Proficient User	Independent User	Proficient User

Levels: Basic user - Independent user - Proficient user
Digital competences - Self-assessment grid

Replace with name of ICT-certificates

- Good command of office suite (word processor, spread sheet, presentation software), internet access, web navigations and social networks acquired during my university studies and daily work.
- Good command of digital software management gained as a researcher, teacher and student.
- Basic skills at different languages programming acquired during university studies and current job.
- Good skills in digital design acquired during the development of my Master thesis to design web interfacing related to the research project.
- Good experience with configuration and work with agricultural equipment performance monitors.
- Good skills in working with Harvest Data Management software.

Driving license   B

ADDITIONAL INFORMATION

Publications
- "Geographic Information System for Precision Agriculture in Cuba". XVIII Symposium of Electrical Engineering; International Convention UCLV 2019. (ISBN: 978-959-312-372-3)
- "Use of SMS Software for the Management of Sugarcane Combine CASE IH A8000", Revista Ingeniería Agrícola 8(4), 37-42 (ISSN: 2306-1545)
- "Advanced Farming System with Automated Sprayers Case IH Patriot 250"; Cubaindustria 2018. (ISSN: 1607-6281)
- "CASE-IH A8000 in the automation of the sugarcane agriculture". XVII Symposium of Electrical Engineering; International Convention UCLV 2017. (ISBN: 978-959-312-258-0)
- "Maps of Variables Generation using Case IH A8000 sugarcane harvesters". XVII Symposium of Electrical Engineering; International Convention UCLV 2017. (ISBN: 978-959-312-258-0)
- "Geographic Information System for sugarcane agriculture in the province of Villa Clara", Revista Cubana de Ciencias Informáticas 13(2), 30-46 (ISSN: 2227-1899)

Projects
- "Information offered by the onboard computer of the Case 8800 combine. " In Suga Company (AZCUBA) Villa Clara"
- "Data processing of sugarcane harvester Case-IH series A8000". In meeting with directors AZCUBA – INICA – ETICA. Villa Clara, Cuba 2017.
- GIS for management agricultural machinery. In Institute of Investigations sugarcane (INICA). Villa Clara, Cuba 2018

Honors and awards
- Distinguished award of Student Researcher in the framework of the celebration for the day of science in the UCLV (2017)

Presentations
- 1st National Agriculture Event from the Cuban Computer Union. Sancti Spíritus, Cuba, 2017

Certifications
- These are Open Badges that have been issued to me to certify my skills.