

Fernando Roperro

PhD in Computer Science

Results-oriented researcher with 5+ years of artificial intelligence experience applied in the robotics field, including optimization methods and evolutionary algorithms. Motivated to explore and acquire new knowledge to create autonomous technologies that improve society's life quality.



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SKILLS

Organizational Skills

Teamwork

Communication Skills

Problem-solving skills

Artificial Intelligence Methods

Statistics

Algorithms

Autonomous Vehicles

WORK EXPERIENCE

Senior Applied Researcher

University of Alcalá

09/2017 - Present

Alcalá de Henares, Spain

Achievements/Tasks

- Formulated and implemented a novel path planning algorithm for efficient cooperative multi-robot exploration in Mars terrains.
- Created a task planning algorithm for parcel deliveries by a cooperative truck-drones system.
- Awarded cum laude for his thesis.
- Co-director of 1 Phd's student.

Visiting PhD Student

Technische Universiteit Delft

02/2019 - 08/2019

Delft, The Netherlands

Achievements/Tasks

- Devised a mathematical method for cooperative routing between truck and drones.
- Evaluated discrete optimization methods for cooperative routing.
- Built an autonomous controller for multi-robot cooperation in uncertain terrains.
- Worked with other researchers in efficient energy distribution in smart grids.

Postgraduate Researcher

University of Alcalá

09/2015 - 09/2017

Alcalá de Henares, Spain

Achievements/Tasks

- Integrated an artificial intelligence system into an unmanned aerial vehicle for terrain exploration.
- Devised a computational geometry algorithm for smart clustering in multi-robot scenarios.
- Created evolutionary algorithms for solving routing problems of cooperative multi-robot systems.
- Supervised 2 Bachelor's students and 1 Master's student.

WORK EXPERIENCE

Entry-Level Researcher

University of Alcalá

09/2014 - 09/2015

Achievements/Tasks

- Designed and built the hardware and software of an unmanned aerial vehicle for artificial intelligence applications.
- Implemented a ground control station for the assessment of autonomous controllers for robotic applications.
- Collaborated in several robotic projects inside the Intelligent Systems Group of the University of Alcalá.

Alcalá de Henares, Spain

EDUCATION

PhD, Computer Science

University of Alcalá

09/2016 - 11/2020

Alcalá de Henares, Spain

Master's Degree in Space Research

University of Alcalá

09/2015 - 09/2016

Alcalá de Henares, Spain

Bachelor's Degree in Computer Engineering

University of Alcalá

09/2010 - 09/2015

Alcalá de Henares, Spain

CERTIFICATES

British Council, Advanced English (09/2016 - 09/2017)

Advanced English course given by the British Council at the University of Alcalá

General English Intership (07/2013 - 08/2013)

English course given by the ATC Language School in Bray, Ireland.

Introduction to Python and the framework Django
(07/2012 - 08/2012)

Course given at the University of Alcalá

Course on IT security assessment (07/2011 - 08/2011)

Course given at the University of Alcalá

LANGUAGES

Spanish

Native or Bilingual Proficiency

English

Full Professional Proficiency

HONOR AWARDS

Second prize at the 8th UAH Technology-Based Business
Creation Ideas Contest (02/2015 - 02/2015)

University of Alcalá

INTERESTS

Sports

Friends

Technology