Luis ESCOBAR

Robotics Engineer

26 July 1986

Morgantown, WV, USA

+1 (267) 243-7851

https://www.linkedin.com/in/luisfescobarc/

luisfescobarc@gmail.com

About me

Experienced Robotics Engineer and Researcher with a strong background in Mechatronics. Adaptable professional committed to excellence in research and implementation.
Available for full-time roles starting May 2026.

Skills

- ROS 2 and Robotics
- C++ and Python
- Industrial Automation
- Mechatronics Design
- Research
- Tech. Communication

(*)[The abilities scale is 0 (Basic knowledge) to 6 (Expert).]

Online CV & Videos

Education

2023- 2026	PhD Student in Robotics West Virginia University	Morgantown, USA
2021-2022	PhD Student University of Pennsylvania	Philadelphia, USA
2012-2015	M. Eng Info., Production and Systems Waseda University	Kitakyushu-Japan
2004-2009	B. Sc. Mechatronic Engineering ITESM	Monterrey-México

Professional Experience

2015-2021	Professor & Head of Laboratory Universidad de las Fuerzas Armadas ESPE	Sangolquí, Ecuador
2016-2021	Senior Engineer Lainbori S.A.	Quito, Ecuador
2009-2012	Professor Universidad de las Fuerzas Armadas ESPE	Sangolquí, Ecuador
2009	Systems Engineer Ternium	Monterrey, México
2008	Production Systems Intern Volkswagen AG	Kassel, Germany

Scholarships & Awards

- Fulbright Scholarship to pursue a PhD in USA (2021).
- Mombukagakusho Scholarship for Master's degree in Japan (2013-2015).
- Mombukagakusho Research Student Scholarship in Japan (2012).
- DAAD Scholarship to study one year in Germany (2007-2008).
- Scholarship from the India government for Mechatronics program (2011).
- Best Research Team for Projects of National Interest (ESPE, 2019).
- First Place: IEEE Best Technical Chapter in Latin America (RAS) (2018, 2019).

Memberships & Activities

2020	President (Ecuador Section) IEEE	Robotics & Automation Society
2019	Vice-President (Ecuador Section) IEEE	Robotics & Automation Society
2010-Pres	Active Member IEEE	
2016-2021	Counselor for Student Branch ESPE University	Sangolquí

Qualifications

- Advanced Robotics: ROS 2 (Navigation, Simulation, Implementation).
- Industrial Robotics: KUKA, Fanuc, Motoman.
- PLC Automation: Siemens, Allen Bradley.
- Programming: Fluent in Python and C++ (Git, Linux/Ubuntu).
- Engineering Software: Autodesk Inventor, Catia, SolidWorks, LabView, Matlab.
- Languages: English (TOEFL 110), German (B1), Japanese (JLPT N4).
- Certifications: Six Sigma Green Belt (Arizona University).

Luis ESCOBAR

Robotics Engineer

26 July 1986

Morgantown, WV, USA

+1 (267) 243-7851

https://www.linkedin.com/in/luisfescobarc/

luisfescobarc@gmail.com

About me

Experienced Robotics Engineer and Researcher with a strong background in Mechatronics. Adaptable professional committed to excellence in research and implementation.
Available for full-time roles starting May 2026.

Skills

- ROS 2 and Robotics
- C++ and Python
- Industrial Automation
- Mechatronics Design
- Research
- Tech. Communication

(*)[The abilities scale is 0 (Basic knowledge) to 6 (Expert).]

Courses Taught

2025	Introduction to Robotics (GRA) 3rd Year	Undergraduate
2023	Mechatronics Laboratory (GRA) 1st Year	Undergraduate
2020	Process Optimization 2nd Year	Graduate Masters
2019-2020	Software for Mechatronics Projects 4th Semester	Undergraduate
2017-2019	Industrial Robotics 10th Semester	Undergraduate
2016-2019	Mechatronics Design 10th Semester	Undergraduate
2016	Flexible Manufacturing Systems 2nd Year	Graduate Masters
2015-2017	Introduction to Mechatronics 1st Semester	Undergraduate
2015-2017	CAD CAM CAE 6th Semester	Undergraduate
2010-2012	Flexible Manufacturing Systems 7th Semester	Undergraduate

Training Courses

- Solidworks Flow Simulation.
- Advance Mechanics with Hyperworks 12.0.
- Ansys Mechanical Workbench Introductory 14.0.
- Embedded Systems.
- Basic Labview and Fundamental tools.
- Autodesk Inventor Advanced 2017.
- Microcontrollers PICS – CCS PICC.
- Welding GMAW with Fronius.

Seminars & Community Service

- Robotics Seminar with the Ministry of Education (2020).
- Mechatronics Seminars (Technical University North/Cotopaxi, 2019).
- Reviewer for the Ecuadorian Higher Education Council.
- Collaborated with entities to engage youth in STEM careers (2016-2021).

Luis ESCOBAR

Robotics Engineer

26 July 1986

Morgantown, WV, USA

+1 (267) 243-7851

https://www.linkedin.com/in/luisfescobarc/

luisfescobarc@gmail.com

About me

Experienced Robotics Engineer and Researcher with a strong background in Mechatronics. Adaptable professional committed to excellence in research and implementation.
Available for full-time roles starting May 2026.

Skills

- ROS 2 and Robotics
- C++ and Python
- Industrial Automation
- Mechatronics Design
- Research
- Tech. Communication

(*)[The abilities scale is 0 (Basic knowledge) to 6 (Expert).]

Publications

- "Energy-Aware Coverage Path Planner for Multirotor UAVS", IEEE ICUAS 2025.
  DOI: 10.1109/ICUAS65942.2025.11007830
- "Implementation of Collaborative Work Between Two SCARA Robots in a Robotic Cell for Continuous Classification of Products", Lecture Notes in Electrical Engineering, 2022.
  DOI: 10.1007/978-3-031-08288-7_7
- "Plant Layout Selection Procedure Based on Discrete Event Simulation Software", Lecture Notes in Electrical Engineering, 2022.
  DOI: 10.1007/978-3-031-08280-1_14
- "Process Optimization with Discrete Event Simulation Software: An Experience in Ecuador Small Enterprise", Lecture Notes in Electrical Engineering, 2022.
  DOI: 10.1007/978-3-031-08280-1_15
- "Design, Construction and Evaluation of a 3DOF Urban Planting System", Lecture Notes in Electrical Engineering, 2022.
  DOI: 10.1007/978-3-031-08288-7_6
- "Multi-robot System for Collaborative Work Equipped with Trajectory Planning over IoT Architecture", Lecture Notes in Networks and Systems, 2022.
  DOI: 10.1007/978-3-030-90033-5_24
- "Flexible Manufacturing Systems Optimization with Meta-heuristic Algorithm Using Open Source Software", Lecture Notes in Electrical Engineering, 2020.
  DOI: 10.1007/978-3-030-72212-8_18
- "Multi-Robot platform with features of Cyber-physical systems for education applications", 2020 IEEE ANDESCON.
  DOI: 10.1109/ANDESCON50619.2020.9272030
- "Validation through a digital twin of a Stewart platform with irregular geometry with 6 DOF for simulation of a transport vehicle", 2020 IEEE CASE.
  DOI: 10.1109/CASE48305.2020.9216995
- "YaniWawa: An Innovative Tool for Teaching Using Programmable Models over Augmented Reality Sandbox", ICCIS 2020.
  DOI: https://doi.org/10.1007/978-3-030-59194-6_31
- "6 DOF anthropomorphic robot as a platform for teaching robotics", 2020 IEEE/ASME AIM.
  DOI: 10.1109/AIM43001.2020.9158828
- "Development of a Social Robot NAR for Children's Education", Advances in Intelligent Systems and Computing, 2020.
  DOI: 10.1007/978-3-030-32033-1_33
- "Construction of a Computer Vision Test Platform: VISART for Facial Recognition in Social Robotics", ICAT 2019.
  DOI: 10.1007/978-3-030-42520-3_50
- "Design of an Autonomous Mobile Robot as a Base Platform for Research of Cyber Physical Systems", ICAT 2019.
  DOI: 10.1007/978-3-030-42517-3_16
- "Mechatronics over time: 12 years of creative experiences in Ecuador", LACCEI 2019.
  DOI: 10.18687/LACCEI2019.1.1.451
- "A New Real-Time Flight Simulator for Military Training Using Mechatronics and Cyber-Physical System Methods", InTechOpen, 2019.
  DOI: 10.5772/intechopen.86586

- “Implementation of an IoT Architecture based on MQTT for a Multi-Robot System”, IEEE ETCM, 2018.
  DOI: 10.1109/ETCM.2018.8580321
- “Design of a Spatial Disorientation Simulator using a Modified Stewart-Gough Platform”, IEEE ETCM, 2018.
  DOI: 10.1109/ETCM.2018.8580347
- "Desarrollo de un simulador de sistemas de manufactura flexible con interfaz gráfica basado en redes de petri", Revista Iberoamericada de Ingeniería Mecánica, 2018. ISSN: 1137-2729.
- “Real-time flight simulator construction with a network for training pilots using mechatronics and cyber-physical system approaches”, IEEE ICPCSI 2017.
  DOI: 10.1109/ICPCSI.2017.8392169
- "Design and implementation of complex systems using Mechatronics and Cyber-Physical Systems approaches", IEEE ICMA, 2017.
  DOI: 10.1109/ICMA.2017.8015804
- "Kinematic resolution of delta robot using four bar mechanism theory", IEEE ICMA, 2017.
  DOI: 10.1109/ICMA.2017.8015932