Diego Bravo

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Personal Information

Date of Birth	**October 4, 1991**.
Place of Birth	**Málaga (Santander)**, *Colombia*.
Citizenship	**Colombiano**.

Education

2023-Present	**Ph.D. Student in Electrical Engineering**.
	University: Universidad Nacional de Colombia, Bogotá, Colombia.
2017-2020	**M.Sc. in Biomedical Engineering**.
	University: Universidad Nacional de Colombia, Bogotá, Colombia.
2009-2014	**Mechatronic Engineering**, *University: Universidad Militar, Bogotá, Colombia*.

Awards & recognitions

Distinction	**Best Paper Award**, *Congreso Nacional de Gastroenterologia*, Asociación Colombiana de Asociaciones del Aparato Digestivo, November 4, 2023. Bogotá, Colombia.
Distinction	**Honorable mention (Mención meritoria)**, *Master's degree in Biomedical Engineering.*, presented in School of Medicine at Universidad Nacional de Colombia, November 3, 2020. Bogotá, Colombia.
Distinction	**Best Poster Award**, *Congreso Nacional de Gastroenterologia*, Asociación Colombiana de Gastroenterología, January 8, 2020. Bogotá, Colombia.
Distinction	**M.Sc. in Biomedical Engineering**, *The best grades average*, University: Universidad Nacional de Colombia, 2017-2018.

Research Experience

2019-Present	**Research Assistant**, *at Universidad Nacional, Director: Eduardo Romero, MD. Ph.D*. Computer Imaging and Medical Applications Laboratory (Cimalab).
2021-2022	**Research student**, *at Universidad Nacional de Colombia*, Bogotá, Colombia.
2020-2022	**Research**, Departamento Administrativo Nacional de Estadística (DANE), Colombia.

Work Experience

2023-Present	**Research Assistant**, *at Universidad Nacional de Colombia*, Bogotá, Colombia.
2021-2022	**Assistant Professor**, *at Universidad Militar*, Bogotá, Colombia.
2014-2017	**Engineer**, *at Pharmaceutical Laboratory*, Bogotá, Colombia.
2014-2014	**Research Assistant** - **Undergrade**, *at Universidad Militar*, Bogotá, Colombia.

Publications

Journal	**Diego Bravo,** Juan Frias, Felipe Vera, et.al., *GastroHUN an Endoscopy Dataset of Complete Systematic Screening Protocol for the Stomach*, Scientific Data - Nature, Nature Publishing Group UK London, 2025.

Conference	**Diego Bravo,** Sebastian Medina, Josué Ruano, et.al., *Automatic Endoscopy Classification by Fusing Depth Estimations and Image Information*, ISBI2024, Athens, Greece, May 2024.
Conference	Josué Ruano, **Diego Bravo**, Diana Giraldo, et.al., *Estimating Polyp Size From a Single Colonoscopy Image Using a Shape-From-Shading Model*, ISBI2024, Athens, Greece, May 2024.
Conference	Maria Jaramillo, **Diego Bravo**, Josué Ruano, et.al., *Predicting Metaplasia in Upper Gastrointestinal Images from White Light Endoscopy*, ISBI2024, Athens, Greece, May 2024.
Conference	**Diego Bravo,** Sebastian Medina, Josué Ruano, et.al., *Automated Anatomical Classification and Quality Assessment of Endoscopy by Temporal-Spatial Analysis*, SIPAIM2023, Mexico City, Mexico, November 2023.
Conference	Josué Ruano, **Diego Bravo**, María Jaramillo, et.al., *Generating synthetic endoscopy videos following a systematic screening protocol*, SIPAIM2023, Mexico City, Mexico, November 2023.
Conference	María Jaramillo, Josué Ruano, **Diego Bravo**, et.al., *Automatic Localization of Pancreatic Tumoral Regions in Whole Sequences of Echoendoscopy Procedures*, SIPAIM2023, Mexico City, Mexico, November 2023.
Conference	**Diego Bravo,** Josué Ruano, María Jaramillo,et.al., *Automatic Classification of Esophagogastroduodenoscopy Sub-Anatomical Regions*, ISBI2023, Cartagena, Colombia, April 2023.
Abstract	Fabian Emura, **Diego Bravo**, Josué Ruano, et.al., *ID: 3526254 A Novel Deep Learning Model to Facilitate Complete Systematic Photodocumentation During Upper GI Endoscopy*, Gastrointestinal Endoscopy, May 2021.
Conference	**Diego Bravo,** Josué Ruano, Martín Gómez, Eduardo Romero, *Automatic polyp detection and localization during colonoscopy using convolutional neural networks*, SPIE Medical Imaging 2022, Houston, Texas, United States, February 2020.
Conference	**Diego Bravo,** Josué Ruano, Martín Gómez, et. al., *Automatic polyp localization by low level superpixel features*, SIPAIM2019, Medelin, Colombia, October 2019.
Conference	Josué Ruano, **Diego Bravo**, et.al., *Localization of Small Neoplastic Lesions in Colonoscopy by Estimating Edge, Texture and Motion Saliency*, EMBC2019, Berlin, Germany, July 2019.
Conference	**Diego Bravo, et. al.**, *Automatic detection of colorectal polyps larger than 5 mm during colonoscopy procedures using visual descriptors*, SIPAIM2018, Mazatlan, Mexico, October 2018.

Research Interests

- Applications in medical imaging and signal processing. Machine Learning, Deep Leaning, Self-supervised learning, Transformers in AI and Ethical AI. Computer Vision and Pattern Recognition. Computer-Aided Diagnosis (CAD) System. Interdisciplinary Collaboration in Healthcare Technology.

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