Maria Fernanda Roa Loaiza

Contact

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Languages

Spanish – Native
English – C1
French – A2
German – A1

Programming

♥ Python, ♥ PyTorch
Java, MATLAB, R, Git,
Github, Linux, Excel,
SQL, LaTeX

About me

I am a visionary and creative Deep and Machine Learning Engineer, MSc Biomedical Engineer. I work as a Research Professional at Universidad de los Andes, Colombia. I am a natural leader, and I enjoy teamwork, proven by my participation in a research group at my University. I am interested in Machine Learning, data science, Computer Vision, and Deep Learning applied to engineering challenges. I have participated in different projects oriented to computer-aided Lung Cancer diagnosis, data analysis, and biomedical image segmentation. I am seeking a position to apply my research and academic experience to solving engineering problems and continue my career growth to impact society positively.

Skills

• Leadership • Ability to Work Under Pressure • Creativity • Adaptability • Teamwork • Engineering Problem solving • Analytical thinking • Software Development.

Education

01/20–06/21	**M.Sc.** Biomedical Engineering GPA 4.52 / 5.0 Excellence Scholarship	Universidad de los Andes
08/16–12/19	**B.Sc.** Major in Biomedical Engineering, Minor in Jazz practice Recipient of Quiero estudiar scholarship	Universidad de los Andes

Publications

07/21 — SAMA: Spatially-Aware Multimodal Network with Attention for Early Lung Cancer Diagnosis
Submited to Multimodal Learning and Fusion Across Scales for Clinical Decision Support MICCAI 2021 Workshop
M. Roa, L. Daza, M. Escobar, A. Castillo, and P. Arbeláez

08/20 — Smart Pooling: AI-powered COVID-19 testing   medRxiv Preprint
M. Escobar, G. Jeanneret, L. Bravo-Sánchez, A. Castillo, C. Gómez, D. Valderrama, **M. Roa**, J. Martínez, J. Madrid-Wolff, M. Cepeda, M. Guevara-Suarez, O. L. Sarmiento, A. L. Medaglia, M. Forero-Shelton, M. Velasco, J. M. Pedraza-Leal, S. Restrepo, and P. Arbeláez. https://doi.org/10.1101/2020.07.13.20152983.

Work Experience

01/21–Now — Center for Research and Formation in Artificial Intelligence   Universidad de los Andes
Research Professional
Multidisciplinary work for the development of research projects. Writing and publication of scientific articles in international conferences. Application of computational skills to solve biomedical engineering problems.

06/19–Now — Computer vision research group   Universidad de los Andes
Member
Support research in biomedical segmentation and participate in group seminary. Lead a research team focused on Lung Cancer Computer-Aided diagnosis implementing Deep Learning tools.

01/20–12/20	**Biomedical Engineering Department**	Universidad de los Andes

Graduate Teaching Assistant
Part-time job at the university taught to undergraduate students of the Biomedical Engineering department in the subject of Image Analysis and Processing.

08/19–12/19	**A century of Jazz**	Universidad de los Andes

Teaching aide
Support classroom teacher by assisting with instruction and administrative tasks including working with students who need additional instruction, preparing materials and equipment for activities

01/17–01/18	**Anatomy research group**	Universidad de los Andes

Research assistant
Part of a research about education in Anatomy, among others

Achievements

05/21–09/21	**DS4A - Colombian Cohort 5**	Correlation one

Selected as one of the 620 over 9000 applicants for advanced education in data science, sponsored by the Colombian government.

01/20–12/20	**Excellence AGM scholarship of the Engineering Faculty**	Universidad de los Andes

50 % scholarship for postgraduate studies.

08/16–12/19	**Quiero estudiar Scholarship**	Universidad de los Andes

95% scholarship for undergraduate studies for obtaining a high score in the ICFES exam and attaining a semester GPA of at least 3.25.

2014	**Model United Nations**	Universidad de la Sabana

Germany ambassador at NATO

2012	**Taekwondo red belt**	Escuela Comandos de Taekwondo Colombia

Interests

Professional: · Machine Learning · Computer Vision · Deep Learning · Analytics · Data science.
Personal: · Singing · International Cooking · Romantic poetry · Jazz Improvisation.

References

Pablo Andrés Arbeláez
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