Gustavo A. Salazar-Gomez

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Education

Grenoble INP — Université Grenoble Alpes — Grenoble, France
Master of Science in Mobile, Autonomous and Robotic Systems — Sept 2021 - Aug 2022

Universidad Autonoma de Occidente (UAO) — Cali, Colombia
Postgraduate Diploma Specialization in Artificial Intelligence — Aug 2020 - Jul 2021

Universidad Autonoma de Occidente (UAO) — Cali, Colombia
Bachelor of Engineering in Mechatronics Engineering — Jan 2013 - Dec 2017
Thesis: "Object recognition in images using Deep Learning"
AmeriMex Educational Foundation Scholarship. Two Academic periods.

Research Interest

Mobile Robotics, Intelligent control systems, Artificial Intelligence, Navigation, Aerospace, Computer Vision, Machine Learning and Deep Learning

Experience

Open International — Cali, Colombia
Product Specialist - Support Services — Feb 2019 - Sept 2021

- First level engineer where I was in charge of technical and functional duties, configuring, debugging and supporting Open's product for a North-American customer. In addition to this, establishing partnership and communication channels with Open's US client to collect and understand their needs, finally propose solutions that were able to meet these requirements for their approval.

Robotica for kids — Cali, Colombia
Robotics teacher — Jan 2018 - Dec 2018

- Teach robotics topics for kids in schools or in-site courses from middle to high school, and develop different projects in a variety of complexity levels for classes.

Universidad Autónoma de Occidente — Cali, Colombia
Member of the Research Group in Technologies for Manufacture (GITEM) — 2016 - 2017

- Design and construction of a scaffold from a biomaterial that serves as support for mesenchymal stem cells (MSC) of bone marrow, for its potential use in the regeneration of the infarcted myocardium of a biomodel.

Publications

[1] Salazar, G. A. et al., (2021). High-level camera-LiDAR fusion for 3D object detection with machine learning [Poster Presentation]. Computer Vision and Pattern Recognition Conference: LatinX in AI (LXAI) Research Workshop 2021, Virtual.

[2] G. A. Salazar Gomez, N. Díaz Salazar, and J. A. López Sotelo, "Extended version: Application of transfer learning for object recognition using convolutional neural networks", in *Applications of Computational Intelligence*, A. D. Orjuela-Cañón, J. C. Figueroa-García, and J. D. Arias-Londoño, Eds., Cham: Springer Communications in Computer and Information Science book series (CCIS, volume 833), 2019, pp. 14–25, ISBN: 978-3-030-03023-0.

[3] G. A. Salazar Gomez, N. D. Salazar, and J. Alfonso Lopez Sotelo, "Application of transfer learning for object recognition using convolutional neural networks", in *2018 IEEE 1st Colombian Conference on Applications in Computational Intelligence (ColCACI)*, 2018, pp. 1–6.

Projects

List of projects developed to learn a new algorithm, computational tool or as a research initiative.

- 3D object detector for vehicles using classic Machine Learning algorithms.
- Computer Vision with Deep Learning: Projects such as FasterRCNN, MaskRCNN, GANs.
- Face recognition using LBP using a SVM as classifier for faces in the scene.
- Neural Style-transfer: Transfer a Style from a painting to a content image.

Scholarships and Awards

- AmeriMex Educational Foundation Scholarship. Amerimex Communications, Roswell, GA, USA. 2015–2016
- Director's Honor Roll, English proficiency. Language Institute. Universidad Autonoma de Occidente - Cali. 2013-2014

Relevant Courses & Certificates

- **Introduction to Satellite Communications** Jan 2020
  Institut Mines-Télécom on Coursera.

Skills

- **Languages:** Python, C++, Matlab, Java, HTML.
- **Libraries:** OpenCV, Scikit-Learn, Tensorflow, Keras, PyTorch, Open3d.
- **Technologies:** Docker, GitHub, Linux

Languages

- **English:** Advanced - C1
  - **TOEFL iBT:** 100 Overall
- **Spanish:** Mother-Language