Gustavo A. Salazar-Gomez

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Education

PhD in Informatics — Grenoble, France
Université Grenoble Alpes — INRIA — Jan 2024 - Ongoing
Under supervision of Anne Spalanzani and Christian Laugier

M.Sc. in Mobile, Autonomous and Robotic Systems — Grenoble, France
Grenoble INP — Université Grenoble Alpes — Sept 2021 - Sept 2022
Thesis: "Transformer-based Lidar-RGB Fusion for Semantic Grid Prediction in Autonomous Vehicles" - link

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

B.Eng. in Mechatronics Engineering — Cali, Colombia
Universidad Autonoma de Occidente (UAO) — Jan 2013 - Dec 2017
Thesis: "Object recognition in images using Deep Learning"

Research Interest

Mobile Robotics, Autonomous vehicles, Artificial Intelligence, Navigation, Aerospace, Computer Vision, Reinforcement Learning and Deep Learning.

Experience

Centre Inria de l'Université Grenoble Alpes — Grenoble, France
R&D Engineer - CHROMA team — Oct 2022 - Dec 2023

- Perform research in semantic grids prediction by fusing camera and Lidar inputs, and path planning for autonomous vehicles.

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 North-American customers.

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.

Publications

[1] **G. Salazar-Gomez**, W. Liu, M. Diaz-Zapata, D. Sierra-Gonzalez, and C. Laugier, "Tlcfuse: Temporal multi-modality fusion towards occlusion-aware semantic segmentation", in *2024 IEEE Intelligent Vehicles Symposium (IV)*, 2024, pp. 2110–2116.

[2] **G. Salazar-Gomez**, D. S. González, M. Diaz-Zapata, A. Paigwar, W. Liu, Ö. Erkent, and C. Laugier, "Transfusegrid: Transformer-based lidar-rgb fusion for semantic grid prediction", in *17th International Conference on Control, Automation, Robotics and Vision, ICARCV 2022, Singapore, Singapore, December 11-13, 2022*, IEEE, 2022, pp. 268–273.

[3] G. A. Salazar-Gomez, M. A. Saavedra-Ruiz, and V. Romero-Cano, "High-level camera-lidar fusion for 3d object detection with machine learning", *Computer Vision and Pattern Recognition (CVPR) Conference: LatinX in AI (LXAI) Research Workshop*, 2021.

[4] J. A. López Sotelo, N. Díaz Salazar, and G. A. Salazar Gomez, "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 International Publishing, 2018, pp. 14–25, ISBN: 978-3-030-03023-0_2.

Academic Services

Reviewer - IEEE IV 2025 February 2025
Topic: Autonomous driving, Trajectory planning

Reviewer - IROS 2024 April 2024
Topic: 3D Detection, Trajectory planning

Reviewer - IEEE IV 2024 March 2024
Topic: Autonomous driving, Path planning

Reviewer - IROS 2023 April 2023
Topic: Multi-sensor, 3D Detection

Skills

- **Languages:** Python, C++, Matlab, HTML, Shell.
- **Libraries:** OpenCV, Scikit-Learn, Tensorflow, PyTorch, nuScenes, nuPlan, PyTorch Lightning, Open3d.
- **Technologies:** Docker, Git, Linux

Languages

- **Spanish:** Mother-Language
- **English:** Advanced - C1
- **French:** Intermediate - B1/B2