INGRID NAVARRO ANAYA

Computer Vision Intern at Carbon Robotics

linkedin.com/in/ingridnavarroan github.com/navarrs

RESEARCH EXPERIENCE

Robotics Institute Summer Scholar at the Navigation Laboratory (Navlab)
Carnegie Mellon University
June 2018 – Aug 2018 Pittsburgh PA, USA
Research on semantic segmentation of highly sparse 3D LiDAR data from low-end sensors using Deep Learning.

Robotics Institute Summer Scholar at the Navigation Laboratory (Navlab)
Carnegie Mellon University
June 2017 – Aug 2017 Pittsburgh PA, USA
Research on object classification and detection systems using Deep Learning algorithms to perform detection of wheelchairs in cluttered environments.

WORK EXPERIENCE

Computer Vision Engineer
Carbon Robotics
July 2019 – Present Guadalajara, México
Participating in the design, implementation and evaluation of the computer vision software for a robotic arm for manufacturing tasks.

Computer Vision Engineer
X-LAB Protexa R&D
Dic 2018 – June 2019 Monterrey NL, México
Worked in collaboration with PROESA Company to design an automatic visual inspection system to find paint defects on vehicle components.

Electronics Engineering Intern
Omius Robotic Clothing
Dic 2016 – May 2017 Monterrey NL, México
Participated in the design of a jacket that adapts based on the physical activity of a person and the environment conditions to help regulate body temperature.

ACADEMIC PROJECTS

Computer Vision Team Lead at VantTEC (Unmanned Autonomous Vehicles Lab)
Tecnológico de Monterrey
Jan 2018 – May 2019 Monterrey NL
Lead the research and development of the perception system of an autonomous robotic boat for the International RoboBoat Competition by RoboNation.

PUBLICATIONS

Working Papers Journal Articles

- Navarro, I. and L. Navarro-Serment (2018). "Real-Time Semantic Segmentation System of Sparse LiDAR Point Clouds using Lightweight CNNs and Recurrent CRF". in: *RISS Working Papers Journal* Vol. 6, pp. 105–111.
- Navarro, I. and L. E. Navarro-Serment (2017). "A Faster RCNN-Based Wheelchair Recognition System". In: *RISS Working Papers Journal* Vol. 5, pp. 125–132.

Conference Proceedings

- Navarro, I., A. Herrera, et al. (2018). "Data Augmentation in Deep Learning-based Obstacle Detection for Autonomous Navigation on Aquatic Surfaces". In: *Advances in Computational Intelligence. 17th Mexican International Conference on Artificial Intelligence, MICAI 2018, Guadalajara, Mexico, Proceedings, Part II*. vol. 11289. Springer International Publishing, pp. 342–353.

EDUCATION

B.S. in Digital Systems and Robotics
ITESM - Tecnológico de Monterrey, México
Aug 2014 – May 2019
GPA: 94 / 100

Computer Engineering Exchange Student
École Polytechnique de Montréal, Canada
Aug 2017 – Dic 2017

AWARDS

- **Top student of the School of Engineering**
  Tecnológico de Monterrey (Apr 2018)
- **RoboCup Platform Soccer League Competition, 1st place.**
  Mexican Robotics Tournament (Mar 2018)
- **Emerging Leaders in the Americas Program (ELAP) Scholarship Recipient**
  Government of Canada (Aug 2017)
- **Hackathon MTY, Junior Category, 1st Place**
  Major League Hacking (Mar 2016)

TECHNICAL SKILLS

C / C++ | Python | Tensorflow | Keras | OpenCV | ROS | MATLAB | Linux | Windows

LANGUAGES

Spanish (Native)
English (TOEFL IBT 100)
French (DELF B2)

INTERESTS

Computer Vision | Deep Learning | Operating Systems | NLP | Robotics