Carlo Wiesse

Aerospace Engineer with a Master in Computer Science

Engineer with 3+ years of computer vision experience passionate about drones and their applications. Skilled at vision-based localization and mapping, simulation of virtual environments, data analysis, and machine learning implementation. Currently working on visual-inertial localization systems for drones using machine learning.

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Work Experience

Fraunhofer FKIE — Bonn, Germany
Researcher — April 2019 – September 2021

- Supported the development of engineering projects in the field of computer vision for military drone-based applications.
- Designed visual localization systems using Python and built virtual environments using ROS to simulate drones using such systems.

CTIC UNI — Lima, Peru
Researcher — August 2017 – July 2018

- Supported the manufacturing of a hydrofoil craft for an international boat racing competition held in France.
- Designed a hydrofoil using flow simulation and AutoCAD modeling, ultimately proposing a carbon fiber body with a fiberglass hydrofoil.

Garrison Flight Research Center — Lawrence, United States of America
Research Intern — June 2016 – August 2016

- Supported the development of collision avoidance software in the field of risk mitigation for military drone-based applications.
- Evaluated popular collision avoidance systems for UAVs in custom virtual environments using MATLAB.

Education

Hochschule Bonn-Rhein-Sieg — Sankt Augustin, Germany
Master of Science in Autonomous Systems — October 2018 – September 2021
Thesis on learning-based visual-inertial localization systems for autonomous drones
Member of the robotics team that placed 1st in the International RoboCup 2019 Competition
Relevant Coursework: Computer Vision, Machine Learning

University of Kansas — Lawrence, United States of America
Bachelor of Science in Aerospace Engineering — August 2013 – December 2016
Graduated with Honors | Full-Tuition Scholarship
Elected as "Sophomore of the year" by the Aerospace Engineering department
Relevant Coursework: Aerodynamics, Flight Control

Technical Skills

Proficient in	Linux, Python, C++, MATLAB, ROS, Tensorflow, Git, Jupyter Notebook
Familiar with	Windows, R, SQL, Java, Tableau, AutoCAD, Siemens NX

Languages

English - Fluent **Spanish** - Native **German** - Basic