Education

MSc: Geographical Information System, University of Leicester, UK (2012)

PhD: Earth Observation for Monitoring Tropical Forest Height Estimation Combining SAR and LiDAR data using AI, University of Leicester, UK (2019)

DLR

Internship-1 at
DLR
Germany
SAR data

Internship-2 at
RIKEN
Tokyo, Japan
AI for EO

Delivered training courses in SAR:
1. AfriGEOSS, Gabon
2. Forest2020, UK

A Machine-Learning Approach to PolInSAR and LiDAR Data Fusion for Improved Tropical Forest Canopy Height Estimation Using NASA AfriSAR Campaign Data

Publisher: IEEE   Cite This   PDF

An Erratum is Available

Maryam Pourshamsi ; Mariano Garcia ; Marco Lavalle ; Heiko Balzter   All Authors

Machine-Learning Fusion of Polsar and Lidar Data for Tropical Forest Canopy Height Estimation

Publisher: IEEE   Cite This   PDF

Maryam Pourshamsi ; Mariano Garcia ; Marco Lavalle ; Eric Pottier ; Heiko Balzter   All Authors

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Volume 172, February 2021, Pages 79-94

Tropical forest canopy height estimation from combined polarimetric SAR and LiDAR using machine-learning

Maryam Pourshamsi [a] [1] ✉, Junshi Xia [b] ✉, Naoto Yokoya [b] ✉, Mariano Garcia [c] ✉, Marco Lavalle [d] ✉, Eric Pottier [e] ✉, Heiko Balzter [a], [f] ✉

Jobs while doing PhD:

- Teaching Assistant in Remote Sensing
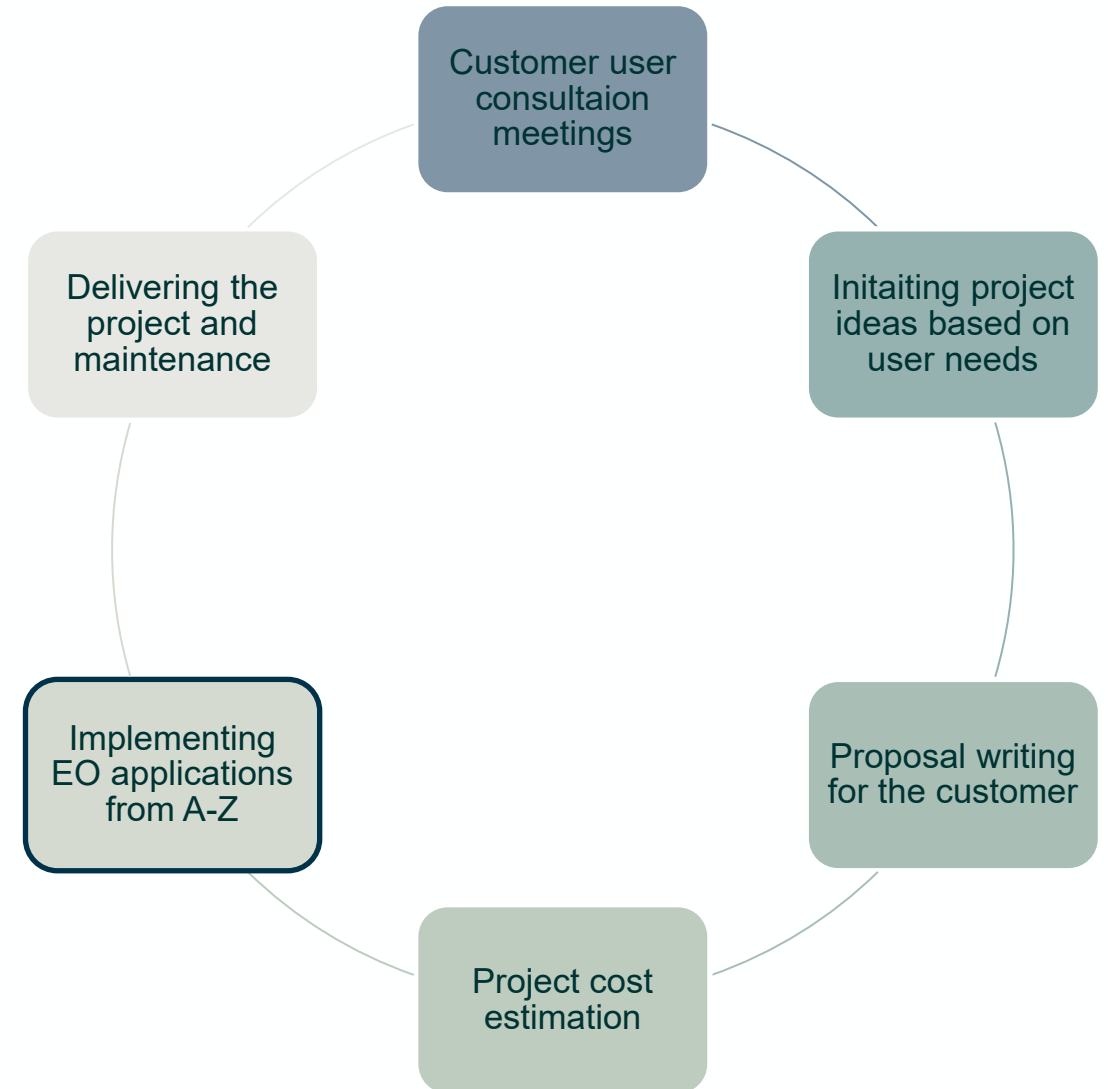
- Satellite Data Analyst

After PhD: Airbus (EO-related) – 2019-2022

Joined Airbus UK
EO Specialist
Sep 2019

Worked on
multiple EO
commercial
projects

Technichal Manager of following key projects:
- Monitoring Shipping Emissions (50k)
- Land use, land use change mapping (600k)
- Mapping small woodland and isolated trees (10k)
- Modelling and mapping SO_2 over airports (500k)

Customer user consultaion meetings

Initaiting project ideas based on user needs

Delivering the project and maintenance

Proposal writing for the customer

Implementing EO applications from A-Z

Project cost estimation

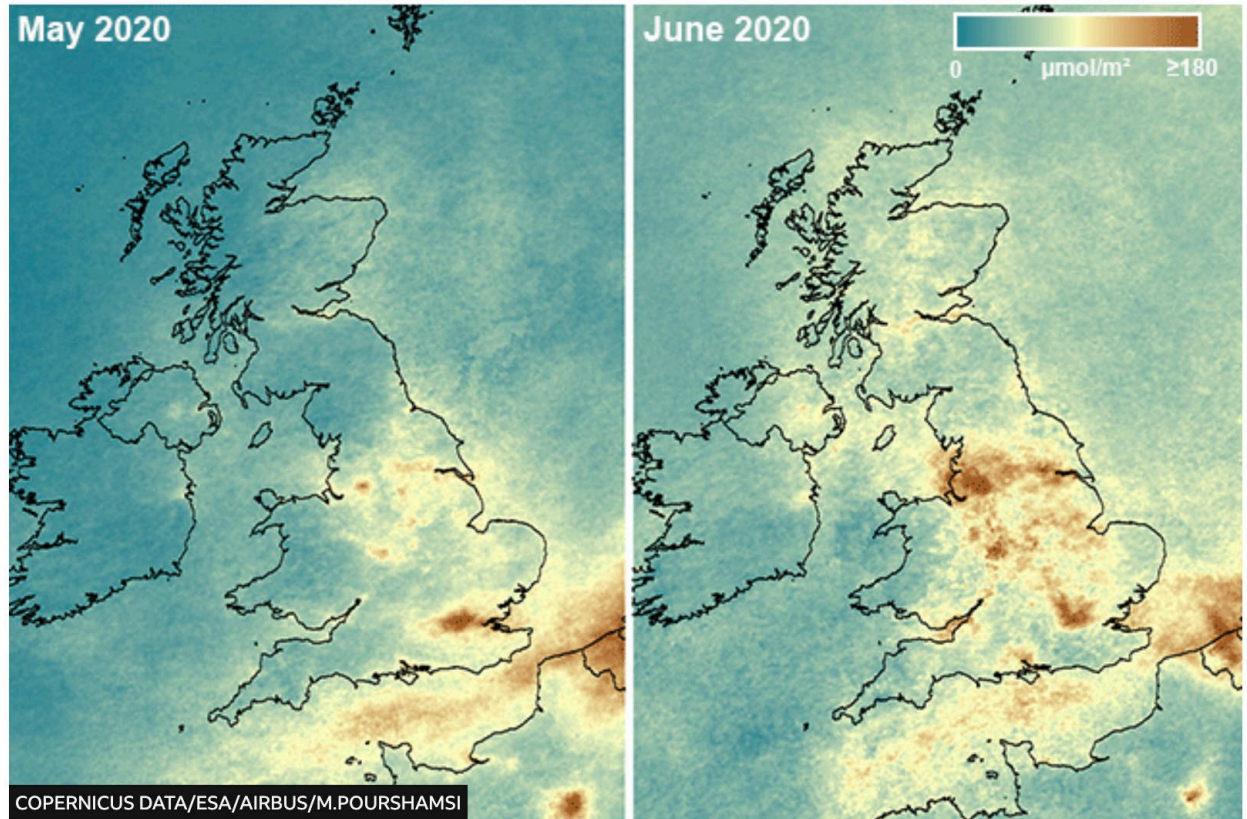# After PhD: Airbus (EO-related) - 2019-2022

BBC NEWS

My Sentinel-5p data analysis was featured in BBC Science after and interview by Jonathan Amos

Coronavirus: Dirty air 'on the rise again' in UK cities - BBC News

Sentinel-5P observations of nitrogen dioxide (NO_2)

MAY 2020 | June 2020

0   µmol/m²   ≥180

COPERNICUS DATA/ESA/AIRBUS/M.POURSHAMSI

The satellite data suggests NO2 concentrations are picking up in the big cities

After PhD: Airbus (Semi EO-related) - 2019-2022

In addition to my day-to-day technical role, I also was:

- **Responsibility and Sustainability Lead** for Airbus Global Connected Intelligence

- **Partnership Manager** between Airbus Foundation and World Wildlife Foundation (WWF)

- **Partnership Manager** between Airbus and University of Leicester

Current Position (March 2022 – present)

➢ **Earth Observation Scientist at ESA (ESTEC)**

➢ **Secretary of the ESA's Advisory Committee for Earth Observation (ACEO)**

→ THE EUROPEAN SPACE AGENCY