

MAXIMILIAN PIERZYNA

AEROSPACE ENGINEER, M.Sc.



EDUCATION

PhD Candidate in Optical Turbulence Modelling 08/2022 - ongoing

Technische Universiteit Delft, Delft, Netherlands

- Modelling optical turbulence in the atmosphere with data-driven and machine learning-based methods to enable robust free-space optical communication

M.Sc. in Aerospace Engineering 10/2019 - 06/2022

Technische Universität Braunschweig, Braunschweig, Germany

- Master thesis: "Characterisation of on-orbit fragmentation events based on TLE data"

M.Sc. in Aerospace Engineering (Erasmus+ semester) 08/2020 - 01/2021

Kungliga Tekniska Högskolan (KTH), Stockholm, Sweden

B.Sc. in Mechanical Engineering 10/2015 - 09/2019

Technische Universität Braunschweig, Braunschweig, Germany

- Bachelor thesis: "Prediction of droplet splashing using machine learning techniques"

EXPERIENCE

Student Researcher in Machine Learning Modelling of Aerodynamical Problems 11/2019 - 05/2022

Institute of Fluid Mechanics, TU Braunschweig, Braunschweig, Germany

- Developing Machine Learning classification and regression models to predict physical properties and parameters of flow problems

System Administrator 04/2016 - 01/2020

Coordinated Research Centre 880 (CRC 880), TU Braunschweig

- Maintained the research centre's Linux server and research data platform
- Contributed to the strategic planning and development of the IT infrastructure and the research-supporting IT tools

PUBLICATIONS

- Pierzyna, M., Burzynski, D. A., Bansmer, S. E., & Semaan, R. (2021). Data-driven splashing threshold model for drop impact on dry smooth surfaces. *Physics of Fluids*, 33(12), 123317.

LANGUAGE SKILLS

German (Native language)

English (C2)

Italian (A2)

Swedish (A1)

IT SKILLS

Programming

Python Matlab C++ git

databases parallelisation

Data Science

PyTorch scikit-learn

bayesian optimisation

Miscellaneous

Latex Docker CATIA V5

Linux desktop Linux server

INTERESTS

Cooking, Sailing, Windsurfing, Inlineskating, Programming, Travelling