# Mr. Maksim Trifonov, PhD

Day of birth 13th May 1990 Place of birth Sobinka, USSR



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Work experience

#### **11/2021 – present** (full time)

**Q** Berlin, Germany

# Researcher (PostDoc) / Systems Engineer

Department of Design and Operation of Maritime Systems, Research group Underwater technology, Technical University Berlin

Development of a simulation framework in Matlab&Simulink to validate an AUV concept; modeling and simulation of mechatronic systems: GNC, fuel cell, propulsion and other systems; system analysis and optimization of autonomous maritime systems; research project MUM (Large Modifiable Underwater Mother Ship).

## **01/2020 – 10/2021** (part-time)

**P** Brunswick, Germany

#### Freelance Researcher

Efficiency analysis of a hybrid power system combining solar and wind power with battery storage using Monte Carlo simulation; statistical analysis of key indicators of the power system taking into account the spatio-temporal correlation of wind speed.

## **10/2018 – 12/2019** (part-time)

**9** Moscow, Russia

# **Lecturer / Research Engineer**

Institute of System Analysis und Control, Moscow Aviation Institute (National Research University)

General support of lectures and supervisor of tutorials Systems analysis and Stochastic dynamics; flight control system design and analysis of its fault-tolerance capabilities.

## **10/2017 – 09/2018** (full time)

**Q** Darmstadt, Germany

## **Visiting Researcher**

Institute of Flight Systems and Automatic Control, Technical University Darmstadt

Concept development of the optimal landing control of a hybrid autonomous UAV; analysis of the fault-tolerance capabilities of a flight control system based on robust methods; research project ACoRUs (Active Fault-Tolerant Control for Redundant UAV's).

#### **09/2016 – 08/2017** (part-time)

**9** Moscow, Russia

# **Engineer Guidance, Navigation and Control**

Guidance, navigation and control department, Roscosmos

Development of modified flight control algorithms based on LQ trajectory-tracking approach; statistical analysis of disturbed motion; modeling and simulation in Matlab&Simulink.

# **08/2014 – 08/2016** (full time)

**Moscow**, Russia

### **Data Engineer**

Department of data processing and scripting, GfK-Rus

Programming of data structures; data post-processing and data analysis in SPSS Statistics; SQL queries for data extraction; technical support of projects.

#### **Education**

02/2022 - 03/2023

**9** Berlin, Germany

# **Berlin Higher Education Teaching Certificate**

The Berlin Center for Higher Education (BZHL)

09/2020 - 11/2022German course

**P** Brunswick, Germany

B2 and C1 levels, Volkshochschule Brunswick GmbH

09/2015 - 03/2020

**Moscow**, Russia

# **Doctor of Philosophy**

in Systems analysis and Control, Moscow Aviation Institute (National Research University)

09/2008 - 01/2014

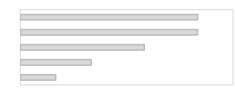
**Q** Moscow, Russia

Master of Science with honors

in Flight dynamics and Control, Moscow Aviation Institute (National Research University)

# **Skills & Competences**

MS Office Matlab&Simulink Delphi, Visual Basic Fortran, LabVIEW C, Python



# **Achievements & Certificates**

2018 Best oral presentation "ICMCE '2018", Amsterdam

2017 DAAD award, fellowship at TU Darmstadt

2014 MSc degree with honors

2013 State scholarship for excellent academic performance

### Languages

German C1 English B2 Russian C2



# **Hobbys & Interests**

Hiking, bike, football, building drones.

Autonomous systems, AI, renewable energy sources, multibody systems.

## **Others**

Driving license, category B



Place, date Signature