

ALEKSEI BELONOVSKII

Scientific Software Developer | AI for Photonics and Materials

 [abelonovskii.github.io](https://github.com/abelonovskii)

 [aleksei-belonovskii](https://www.linkedin.com/in/aleksei-belonovskii)

 aleksei.belonovskii@gmail.com

 Germany

SKILLS

Photonics

Spectroscopy

Quantum Optics

Light-Matter Interactions

Condensed Matter Physics

Academic Writing

Numerical Simulation

Laboratory experience

Python

C++

C#

LabVIEW

COMSOL Multiphysics

MATLAB

Mathematica

Keras

Tensorflow

Pytorch

Docker

Kubernetes

LANGUAGES

English

Russian

PUBLICATIONS

My website

ResearchGate profile

Web of Science profile

ABOUT ME

I am a scientific software developer and physicist specializing in photonics, quantum optics, and AI-driven modeling. With a Ph.D. in Physics and 30+ peer-reviewed publications, I combine deep theoretical expertise with 8+ years of experience in developing scientific, simulation-driven, and AI-enhanced software solutions.


EXPERIENCE

Research And Development Engineer | [QYB - Quantum Yield Berlin](#)

 06 2025 – Current

Design and development of a luminescence measurement system

Senior Software Engineer | [Tungsten Automation \(Kofax\)](#)

 10 2021 – 03.2025

Working in the Emergency Response Escalation Team for various R&D departments.

Research Collaborator | [LUT University](#)

 02 2024 – 02 2025


Led the full-cycle development of a transformer-based AI model for photonic nanostructure analysis and VCSEL emission prediction.

Researcher | [ITMO University & Alferov university](#)

 06 2019 – 06 2022 & 09 2020 – 05 2022

Pursued scientific research in photonics and quantum optics, actively participated in grant-funded projects, published scientific papers, and was an active participant at international photonics conferences.


Researcher & C# / WPF Desktop Software Developer | [RIVS](#)

 05 2017 – 10 2021

Conducted research in X-ray fluorescence analysis. Developed C# software for automating X-ray analysis and factory equipment management.

EDUCATION

PhD, Condensed Matter and Materials Physics
[ITMO University & Alferov university](#)

 2017 – 2021

 Saint Petersburg , Russia

Master's degree, Theoretical and Mathematical Physics
[Alferov university](#)

 2015 – 2017

 Saint Petersburg , Russia