

# ALEXEY KONDRATOV

Lead Software Engineer



Berlin, Germany



kondratov.aleksey@gmail.com



Google Scholar



github.com/ololobus

## OVERVIEW

PhD in Physics and Mathematics with a strong academic background, PostgreSQL contributor and software developer with more than 7 years of experience in total. There is a number of projects where I participated in different roles, from small startups to large web companies. Although it is not directly related to programming, I have a dozen of publications in physical journals. I am able to read/write research papers and present results of my work in text, graphics and as public talks (the most recent were PgCon'20 and FOSDEM'21).

## EXPERIENCE

May 2021 – Present	<b>Lead Software Engineer</b> Serverless PostgreSQL DBaaS. PostgreSQL / Rust / Go / K8s	<b>Neon, Inc.</b>
Oct 2018 – May 2021	<b>Software Developer</b> PostgreSQL core development: recovery (pg_rewind), block-level incremental backup engine (ptrack), sharded fwd-based Postgres, logical replication, autonomous transactions. C / PostgreSQL	<b>Postgres Professional</b>
Apr 2009 – Jun 2022	<b>Research Fellow, Engineer</b> Electromagnetic theory and numerical simulations using Comsol Multiphysics, SEMCAD X and Python. Optics, metamaterials, plasmonics, optical chirality. Atomic force microscopy raw data post-processing. Python / MATLAB / Comsol / SEMCAD X / LaTeX / 3D modeling / Blender	<b>Federal Scientific Research Centre «Crystallography and Photonics» RAS</b>
Sept 2015 – Jun 2018	<b>CTO, Senior Software Developer</b> Full-text search engine for translation memory (TM) and Rails API development. CI and deploy infrastructure. Gitlab Issues, Superset (ex Caravel) analytics and dashboards, Yandex metrics, Google analytics. Ruby / Rails / Python / JavaScript / NER, NLP / PostgreSQL	<b>Skuuper</b>
Jun 2017 – Sept 2017	<b>Google Summer of Code</b> PostgreSQL patches development: errors handling and parallel COPY execution. C / PostgreSQL	<b>PostgreSQL</b>
Mar 2015 – Dec 2015	<b>Software Developer, Tutor</b> Automation of programming tasks assignment and verification at Data Science courses (MapReduce, Machine learning, Recommendation systems, Graphs). Personal consulting for students. Python / MongoDB / Hadoop / Spark	<b>New Professions Lab</b>
Nov 2013 – Jun 2014	<b>Software Developer</b> Search engine results page frontend and middleware developer. BEM platform contributor. JavaScript / CSS / SERP	<b>Yandex</b>
Jun 2011 – Nov 2013	<b>Software Developer</b> Full stack web development at various projects: social game, dating service and travel tours meta search engine. Ruby / Rails / JavaScript / Backbone.js / PostgreSQL	<b>S&amp;A Web Development</b>

## EDUCATION

Oct 2012 – Jun 2018	<b>Doctor of Philosophy (Ph.D.)</b> Physics and Mathematics, Condensed Matter Physics	<b>Federal Scientific Research Centre «Crystallography and Photonics» RAS</b>
Sept 2006 – Sept 2012	<b>Master's Degree</b> Applied Mathematics and Physics	<b>National Research Nuclear University «MEPhI»</b>