

Konstantin Nesterov

TECH ENTREPRENEUR

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Summary

With extensive experience in the software development within various fields, I have proven expertise in successfully planning, governing, and implementing the complex features. With my broad domain knowledge, ability to estimate the risk correctly, and the willingness to take it, I constantly adapt my strategy and ensure that the quality requirements and business needs are satisfied within the deadlines. Through my soft skills I constantly maintain proper coordination between different members of the team, helping them to be efficient in their roles.

Education

Department of Physics ETHZ

M.Sc. IN PHYSIK

- Best technical university of continental Europe
- GPA: 4.89/6

Zurich, Switzerland

September 2016 – February 2020

Faculty of Physics MSU (Lomonosov Moscow State University)

B.Sc. IN PHYSICS

- Best university of post-Soviet space
- GPA: 4.51/5

Moscow, Russia

September 2012 – June 2016

Skills

Programming JavaScript, TypeScript, Node.js, GraphQL, Docker, Kubernetes

Languages Russian, English (TOEFL iBT: 116, IELTS Academic: 7.5), German B2 (in process)

Career History

Co-Founder & CTO

REBELS TECHNOLOGIES GMBH

- Was responsible for the architecture of multiple mobile applications, websites, and servers
- Ensured security of the users' data by enforcing encryption and industry best practices
- Translated the business tasks into the concrete technical implementations
- Defined the strategy for a stable and predictable load management
- Configured the whole internal infrastructure
- Set the standards to ensure the quality and the manageability of the projects
- Managed employees to help them to grow professionally and to be productive
- Contributed to the company's business strategy and future plans
- Interviewed and hired core team members
- Represented the company on the various startup competitions
- Communicated with the investors to meet their aims and to safeguard the fundraising

Zurich, Switzerland

September 2018 – Present

Scientific Projects

Supervisory Control and Data Acquisition system of the n2EDM experiment

PRECISION PHYSICS AT LOW ENERGY, DEPARTMENT OF PHYSICS ETHZ

- Designed and implemented features of the internally developed programming language
- Improved the connectivity between various DAQ (Data Acquisition system) modules
- Enabled the DAQ to function in the error-prone environments
- Refactored and standardized the communication protocols to boost the speed of development
- Enhanced both the developer and user experiences

Zurich, Switzerland

June 2019 – February 2020

Development of an RF resonator for a double junction ion trap

TRAPPED ION QUANTUM INFORMATION GROUP, DEPARTMENT OF PHYSICS ETHZ

- Calculated optimal parameters for a helical resonator filtering and amplifying RF signal for an ion trap
- Designed tunable helical resonator for the cryogenic setup in Autodesk Inventor
- Produced device complying with engineering limitations
- Compared experimental output with modeled predictions

Zurich, Switzerland

September 2018 – March 2019

Optical response of Mie-resonant nanoparticles bounded with dielectric waveguides

Moscow, Russia

LABORATORY OF NANOPHOTONICS & METAMATERIALS, QUANTUM ELECTRONICS DEPARTMENT, FACULTY OF PHYSICS MSU

September 2015 – June 2016

- Calculations of optimal geometric parameters of silicon waveguides, nanodisks or their ordered arrays, optically bounded with waveguides and nanodisk chains
- Fabrication of optically bounded silicon nanostructure samples
- Investigation of linear spectrums and transmittance of waveguides in wide spectral range, overlapping nanodisk Mie-resonant frequencies
- Investigation of nonlinear optical response and all-optical switching phenomena in created nanostructures via methods of microscopy of optical harmonics generation, four-wave mixing and “pump”-“probe” technique

Evaluation of effective permittivity and permeability of artificial structures

Tohoku, Japan

DEPARTMENT OF PHYSICS, FACULTY OF SCIENCE, TOHOKU UNIVERSITY

July 2015 – August 2015

- Used an electromagnetic simulator (CST Microwave Studio) to design the structures
- Fabricated own structures by photolithography technique
- Characterized the sample using conventional spectrometer and Atomic Force Microscope
- Measured phase information with Mach-Zehnder interferometer
- Retrieved effective permittivity and permeability based on an algorithm (MATLAB & Wolfram Mathematica)

The development of components for energy efficient superconductor and semiconductor systems, signal detection, reception, and processing of information (funded by Presidential grant)

Moscow, Russia

LABORATORY OF NANOSTRUCTURE PHYSICS, DEPARTMENT OF MICROELECTRONICS,

August 2014 – May 2015

SINP MSU (SKOBELTSYN INSTITUTE OF NUCLEAR PHYSICS)

- Researched physical foundations of new compact, energy-efficient, and non-volatile superconducting memory elements
- Optimized the transmission line and data transmission mechanism for the new superconducting element base
- Investigated the possibility of using the new base elements in the amplifiers and SQUID detectors

Relativistic quantum cryptography and cryptography based on PTC (Phase Time Coding)

Moscow, Russia

QUANTUM INFORMATION LABORATORY, DEPARTMENT OF QUANTUM ELECTRONICS, FACULTY OF PHYSICS MSU

December 2013 – June 2014

- Investigated various interferometric schemes capable of revealing non-classical features of biphoton field generated in the process of SPDC
- Got basic understanding of quantum cryptography protocols and attacks on them

Superconducting spin valve based on the Josephson junction with a layer of insulator, superconductor, and ferromagnetic (funded by Federal Target Program)

Moscow, Russia

LABORATORY OF NANOSTRUCTURE PHYSICS, DEPARTMENT OF MICROELECTRONICS,

October 2012 – November 2013

SINP MSU (SKOBELTSYN INSTITUTE OF NUCLEAR PHYSICS)

- Gained knowledge about physical foundation of the Josephson junction
- Used numerical methods to calculate multifarious parameters of circuits including Josephson junctions