Maksim Tropnikov

Frontend Developer

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About me

- I'm a frontend developer with scientific background (switched careers from Physics). My job as a researcher involved programming in C++, MatLab and LabVIEW, and developing several tools for using in the lab.
- Currently deepening my knowledge in React ecosystem, Express.js and MERN stack, study algorithms. You can view my code samples, study projects and test assignments on my github.
- Have experience of public speaking at international conferences. Fond of photography, love dogs.

Skills

- o HTML, CSS, SASS/SCSS, LESS
- o JavaScript, TypeScript, React, Redux, Jest
- o Node.js (Express), MongoDB, Webpack, Gulp, Docker
- o Git, GitHub Flow, Agile
- o Familiar with Angular, Stencil and Storybook

Experience

Mar 2022 - Frontend Developer, Fins.money, remote.

Present Working at Fins.money (part of BCS). Development of new features of SPA based on React and Redux, clearing out technical debt, fixing bugs on production, reducing backlog.

Stack: HTML, CSS (LESS), JavaScript, React, Redux (dva), Ant Design, Agile.

Dec 2021 – Junior Frontend Developer, R-Style Softlab, remote.

Mar 2022 Development of hybrid mobile applications using Ionic (with Angular) and Apache Cordova frameworks. Migrating old codebase from AngularJS to Stencil, creating design components with Storybook.

Stack: TypeScript, Angular, Ionic, Cordova, GitHub Flow, Stencil, Storybook, Jest.

Mar 2021 – Frontend Developer (apprenticeship), Yandex. Practicum, online.

Present Learning frontend development with MERN **stack**: HTML, CSS, JavaScript, Git, React, React Router, Node.js (Express), MongoDB, BEM, OOP, Webpack.

During my study at Yandex.Practicum on Web Developer course I implemented several projects:

- o **Mesto.** Project in vanilla JS implemented first with functional programming, then refactored in the OOP paradigm. Functionality: adaptive layout, downloading cards from the REST server via API, addition/deletion of cards, the ability to like cards and edit profile information; OOP when creating a card, adding them to markup, validating forms and opening the popups.
- **Mesto React with authorization and registration.** Mesto project ported on React with main content shown only after authorization (hidden with Protected Route), written in functional components with hooks. CRA and React Context are used. Authorization and registration utilizes JWT saved in local storage.

All projects were code reviewed.

2013 - 2021 Junior Researcher at Quantum sensors lab., Institute of Laser Physics SB RAS.

Theoretical and experimental research in the fields of laser cooling, quantum optics and atomic standards, more precisely – on the development of an optical frequency standard based on Mg atoms, which included programming in MatLab and the visual language G (LabVIEW).

- I developed a thermostabilization system based on LabVIEW and using ADC-DAC and theoretically modeled laser fields interacting with cooled atoms in MatLab.
- Assisted in writing grant proposals, reports and articles for scientific journals.
- o Gave talks at conferences, including international ones.

Education

- 2015 2019 **Graduate work at the PhD level in Physics, specialty: Optics**, *Institute of Laser Physics of the Siberian Branch of the Russian Academy of Sciences (ILP SB RAS)*, Novosibirsk, Russia, Laser cooling and spectroscopy of cold magnesium atoms localised in a magneto-optical trap for an optical frequency standard, supervised by the head of Quantum sensors laboratory A.N. Goncharov, PhD.
- 2013 2015 **MSc in Physics**, *Novosibirsk State University (NSU)*, *Department of Quantum Optics*, Novosibirsk, Russia, Radiation source for a frequency standard based on cold magnesium atoms, supervised by leading researcher of ILP SB RAS A.N. Goncharov, PhD.
- 2009 2013 **BSc in Physics**, *Novosibirsk State University (NSU)*, *Department of Quantum Optics*, Novosibirsk, Russia, Investigation of characteristics of radiation source with narrow generation linewidth for a frequency standard based on cold magnesium atoms, supervised by A.M. Shilov.

Other

Oct 2017 **Predoctoral school Cold atoms and quantum transport**, Les Houches Physics school (Ecole de Physique des Houches), Les Houches, France, October 2–13, 2017.

Courses and certificates

Web Developer Course, *Yandex.Practicum*, 2021-2022 (ongoing), HTML, CSS, BEM, JavaScript, OOP, React, React Router, Webpack, Node.js, Express, MongoDB.

Interfaces Development: Layout and JavaScript Specialization, *Coursera*, MIPT, Yandex and E-Learning Development Fund, 2021, course 1 of 5. Certificate.

Languages

Russian Native

English C1

French A2

Extra info

Interests Digital and analog photography, piano, sport: cycling, running and swimming.

Winner at the 55th International Scientific Student Conference «MNSK 2017» in *Photonics and quantum optical technologies* section. Winner (2018) and third winner (2019) of the ILP SB RAS young students conference contest.

Published several papers with co-authors during my scientific career – on Physics, for now.