# Kirill Shumilov

*Full Stack JavaScript Developer*

github.com/brusherru
linkedin.com/in/brusher
brusher.dev@gmail.com
brusherdev

JS, TS, ES6+, **React, Redux, Electron & Tauri**, **Functional Programming,** C++, Rust, **NodeJS**, **Web3**, Git, CI/CD, Jest, *and much more*

JavaScript developer with 10+ years of experience working with bleeding edge technologies and innovative projects.

I am passionate about focusing on business logic, complex challenges, and prefer test-driven development.

## Work History

**July 2022 to April 2025**

### Senior Full Stack Engineer
spacemesh.io, Full Remote

Open-source
https://github.com/spacemeshos

The blockchain network based on brand-new Proof of Space and Time protocol created within the company and actually is blockmesh (DAG).

I've developed user-facing applications and designed their architecture.

- **Wallet app** (smapp-lite): the web wallet that does not require running the node. It supports different account types, Ledger devices, signing OTA, etc. It passed a security audit by Halborn, one of the leading security audit companies. **HALBORN**

- **Smesher App**: the app that connects to the node and displays all information about mining process, rewards, all events on the timeline, status of the node and Smesher services (1 node may work with many Smesher services, which is actually mining the coin), etc

- **Quicksync-rs**: the CLI tool written in Rust. It quickly downloads node official dump of database and checks hashsum and signatures to allow anyone join the network as soon as possible. It is also used in Smapp under the hood.

- **Smapp Init App**: GUI over CLI-tool to make it easier to setup and (re)plot the space, which is required for mining. Based on Tauri.

- **Smapp**: the monolith app that bundles the node and makes it possible for home miners to easily join the network and start mining. Based on ElectronJS. The only app which development was started before I joined the team.

There was a lot of interesting challenges since Spacemesh network has it's own brand-new account abstraction, we needed smart auto-updates for home miners, we needed to design and implement better and more optimised APIs, etc.

Stack: React, Redux, Zustand, Electron, Tauri, Scale-codec, ED25519, Ledger, Jest, Rust, etc

**June 2016 to March 2021**

### Senior JavaScript Engineer
XOD.io, Moscow

Open-source
https://github.com/xodio/xod

The visual programming language for microcontrollers, which transpiles in C++11, and a cross-platform IDE. It all started with the idea of simplifying the learning curve, but then it grows up to the full-fledged language with polymorphism, custom types, error handling, debug tools, community-driven third-party libraries and so on.

Our team are inspired with functional reactive programming, so we bring some principles of it to the XOD language, taking into account the limitations of microcontrollers: little RAM and little program memory.

My role in this project:

- Developed the visual programming language and the cross-platform IDE from scratch, as a first developer on the project: made a design and architecture decisions, choose a technology stack, write tests, implement features.
- Involved in team creating and interview process.
- Created interactive debug tools and messaging protocol.
- Implemented a simulation mechanism, that makes possible to run the exact the same code, as will be uploaded to the microcontroller, right on Users` PC.
- Recreated some of Arduino (C++) libraries to optimize them, make cross-platform and bring polymorphism in it.
- Solved a lot of other interesting challenges. Check out the GitHub issues to find out all things, that I had done.

Stack: React, Redux, Ramda, Electron, Serialport, ReasonML, Mocha, Jest, Puppeteer, Spectron, Lerna, Babel, Webpack, Handlebars, Emscripten (WASM), C++11.

By the way, the XOD language was positively evaluated by the community around the world. One of the most striking examples, biologists from Cambridge began to use XOD in their master classes and developments, and even held a competition and wrote a book. Read more on their website: https://www.biomaker.org/

| February 2016 to June 2016 | **Front End Developer** |
| --- | --- |

Prossimo.us Via Upwork

The product we develop was an intranet online window designer for sales managers. Using it managers recreates drawings of windows given by architects, choose profiles, mullions, how window opens and so on, and then application calculates a quote for suppliers and cost estimates for the client.

- Integrating regression tests for drawing module using the resemble package,
- Added a feature to create and calculate quotes and costs for circular windows.

Stack: Backbone+Marionette, Underscore, KonvaJS, Mocha+Chai, Resemble.

| February 2012 to February 2016 | **Lead UX Designer / Front End Developer** |
| --- | --- |

oridis.ru, Moscow

- Led the front end team working closely with project managers and developers.
- As a developer created a half-automatic admin panel for the kitchen designer, which parses the SVG pictures of kitchen modules
- Created web-sites from scratch as a designer and front end developer in one person, such as: lesstroy.net, stroicev.ru, optimele.ru

## Education

| September 2007 to July 2012 | **Master of Science in Financial Management** |
| --- | --- |

Moscow Institute of Management, Moscow

## Additional Information

| Languages | Hobbies | Mentoring |
| --- | --- | --- |
| Russian — Native<br>English — B2+<br>Portugues — A1 (learning) | Cinematography & Photography,<br>Travels: me and my family were very active<br>Digital Nomads for 3 years,<br>Music: playing Ukulele and learning Piano | I was a mentor and teacher for some of my buddies who eventually mastered some programming languages and now work in IT. |