

RTN Friend

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residence Lviv, Ukraine

languages Fluent in English, used to live in English speaking environment in Canada for many years

notes This is a public version of my resume so I do not disclose my real name and phone number, please email me if you are interested in cooperation.

- **Objective**

Looking for a **Node.js**, **Android** or **React** developer position. Full stack position would be ideal: node+android or node+react. I am considering remote positions only, with 1000 US\$/month pay to start with.

- **Education**

1990 – 1995 Applied Geodesy, L'viv Polytechnic State University, Ukraine.

- **Programming experience**

2018 – present JSC System Solutions, Kyiv, Ukraine, remote position, software developer and GNSS network administrator.

Node.js

(2+ years experience)

For REST API servers I use [Express](#), in the past I used [LoopBack3](#).

My servers provide CRUD functionality to PostgreSQL and Microsoft SQL Server databases, expose file contents, provide file upload and download functionality, some of my end points run bash scripts and return the response to clients. When I need speed I use NAPI (Node-API) and I write code in C++ and connect the .so libraries to my node servers. When data are large I use [compression](#) for content zipping before inserting into response body. On protected routes I authenticate JWT tokens.

On my authentication servers I issue JWT tokens. My auth servers set httpOnly cookies in client web browsers. Each time access tokens expires my server issues new token based on the refresh token sent by browser in httpOnly cookie.

I do node backend bots. Bot in Telegram I do with [telegraf](#), bots in Viber with [viber-bot](#) and bots in Twitter with [twitter-autohook](#)

Here is the list of my favorite npm packages: [dotenv](#) [xmlhttprequest](#) [axios](#) [sqlite3](#) [mssql](#) [pg](#) [xml2js](#) [jsonwebtoken](#) [bcrypt](#) [cors](#) and others.

For process management and load balancing I use [pm2](#). I do always document my API servers with [swagger-ui-express](#) which also is used for API testing.

Android

(2+ years experience)

I use Android SDKs in Android Studio and Java (I do not use React Native and Kotlin). I developed and actively maintain apps which do http communications with REST API servers, Bluetooth serial port communications, store data in SQLite database, do binary messages parsing on native side in real time. I also do least squares adjustment and Kalman filtering on native side. For displaying spatial information I use [leaflet](#) maps. [markercluster](#) and [heat](#).

Within my android applications I interface other languages:

JSI - JavaScript Interface - I use it when I need to call JS functions in WebView from Java side and vice versa.

JNI - Java Native Interface - I use it when I need speed in Android application or when I need to use my C++ code from Java.

I do have an experience in publishing apps on Play Market, please check my applications at my own account [RTN Friend](#).

React

(10 month experience)

I use React function based components and do my apps with [create-react-app](#), so I do client side rendering. In my react apps I utilize authorization to every backend endpoint. For this I use my own hook that uses axios interceptors to get new access token automatically from auth server (based on refresh token stored in httpOnly cookie). Both authentication and authorization makes client side rendering safe. I like CSR because, the way I do it, is safe and it does not overload server with rendering.

- For spatial data representation use [leaflet](#), [markercluster](#) and [heat](#), same way as I do it in android.

- Tabular data I represent with [agGrid](#).

- For the rest of user interface I use [material-ui](#) framework.

C++

I have been using this language for more than 10 years for my hobby projects and I still use it in android and node.js applications. It finds use when I do least squares adjustment or Kalman filtering, binary streams parsing, or simply when I have my code ready and feel lazy to convert it to Java or Javas Script, some times it does not make sense at all to do such conversion.

- **Projects**

For my projects please visit my resume and portfolio website <https://rtnfriend.github.io/> and please also check my own Play market account [RTN Friend](#).

- **Hobby**

I spent about 10 years building a GNSS receiver (an electronic device) Please visit my [Mirapract](#) website for full details, it is an interesting read, please note that I did everything by myself.