RTN Friend

email	rtnfriend@gmail.com
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.

Server types I build:
- Resource servers that provide CRUD functionality to PostgreSQL and Microsoft SQL Server databases, parse files on server side and expose content to clients, provide file upload and download functionality, run bash scripts on server side and return the response to clients, verification of JWT tokens.
- Authentication servers based on JWT tokens (user registration, authentication)
- Bot servers. Bots in Telegram I do with telegraf, bots in Viber with viber-bot and bots in Twitter with twitter-autohook

My approaches to build a reliable web server:
For memory intense computations I write code in C++ and compile .node libraries and use them from node application via Node API. When response data are large I use compression. On protected routes I authenticate JWT tokens. 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.

List of my favorite npm packages: dotenv xmlhttprequest axios sqlite3 mssql pg xml2js jsonwebtoken bcrypt cors.

Android

(2+ years experience)
I use Android SDKs in Android Studio and Java (I do not use React Native or Kotlin). I developed and actively maintain apps on Play Market. My apps do http communications with REST API servers, Bluetooth serial port communications, store data in SQLlite 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 existing C++ code in Android application.

I do have an experience with everything involving 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, 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 browser as 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 backend 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. I use CMake for building .so libs and Linux executables and node-gyp + node-addon-api for making my own .node libs.

• 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.