Roman Gafiyatullin

☏ +375 (33) 602 5080
✉ r.gafiyatullin@me.com
📂 https://github.com/RGafiyatullin
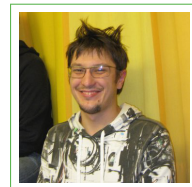
▬▬▬ Education

2004–2008   **Minsk State Higher Radiotechnical College**, *Software and IT*.

▬▬▬ Languages

Russian	**Native**
English	**Advanced**

▬▬▬ Technologies actively used

Erlang/OTP	Network daemons, distributed and highly available systems
Scala/Typesafe	REST-services using 'Play!', Akka and other Typesafe/Lightbend's stuff
C	Binding missing functionality to Erlang
Rust	Portable CLI-utilities. Generally safer way to program native code
Databases	SQL or NoSQL, embedded or as a service. Most of the time I know what to do with them. Sometimes though a help of a qualified DBA is needed

▬▬▬ Open source

2015   **netvl/xml-rs**, *Xml pull-parser for Rust*.
https://github.com/netvl/xml-rs/graphs/contributors

2015   **uutils/coreutils**, *Rust implementation of unix-utilities*.
https://github.com/uutils/coreutils/graphs/contributors

2015   **RGafiyatullin/owl_xmpp**, *Erlang XMPP-protocol library*.
Erlang implementation of XMPP stream protocol.
https://github.com/RGafiyatullin/owl_xmpp

2015   **RGafiyatullin/orca**, *Erlang MySQL-client*.
This driver has been implemented after a some period of fiddling with Emysql.
Emysql cannot do pipelining: the connection sleeps each time after it is returned into the pool and until it's acquired again. This results in the total inability to utilize the database ('show processlist': everyone sleeps).
You can organize your own pool: worker-pool instead of connection-pool (https://github.com/RGafiyatullin/emysql/). But still you have to work with sockets the passive-way.
When the connection is closed from the remote side, that fact gets known right at the moment that connection is most necessary (upon query).
Enough was enough! Orca was supposed to be the MySQL-client done correctly.
https://github.com/RGafiyatullin/orca

2014 **RGafiyatullin/cowboy_http_pipeline**, *handle pipelined HTTP-reqs concurrently*.
Standard cowboy handlers analyse the input, process the request and generate the output within the same process. This is why you sometimes cannot use cowboy for doing long-polling with keep-alive. BOSH – is a good example: by protocol design the consequent request can influence on the preceding one (by unbocking it) – this sort of behaviour cannot be implemented with a standard cowboy handler.
`https://github.com/RGafiyatullin/cowboy_http_pipeline`

2012 **RGafiyatullin/durden**, *SOAP server for Erlang*.
Durden is an Erlang/OTP library for making SOAP API's with Cowboy webserver easier.
The difference from for example yaws_soap_lib is that you do not have to write WSDL yourself.
Durden generates it for you: you just need to point which functions you are going to export and specify the types of their arguments and return values with a standard typespec attribute.
`https://github.com/RGafiyatullin/durden`

2011 **RGafiyatullin/kyte**, *Erlang binding for Kyoto Cabinet embeddable KV-storage*.
Kyte is an Erlang/OTP library enabling Erlang to use Kyoto Cabinet storages.
It's key-feature is that it uses a separate thread-pool for dispatching long playing requests to the storage so it does not interrupt Erlang virtual machine's scheduler work.
Other bindings are not that good and can freeze the application for unpredictable period.
`https://github.com/RGafiyatullin/kyte`

Experience

2012–present **XMPP Services Developer**, *Wargaming.net*, Minsk.
Leading a cozy development team of three programmers.
Detailed achievements:
- Initial development of internal XMPP-server (totally not eJabberd);
- Architecture of XMPP-service capable of dealing with kind of a massive load (WoT game project):
  - over 600K CCU (registered peak – slightly over 1KK CCU);
  - 10M of active users with average of 12 mutual friends;
  - over 100K routing operations per second during peak loads;
  - worst 99.9-percentile latency of the latter routing operations is below 100ms;
- A set of measures to move out non-vital functionality out of the game-server to the XMPP-services:
  - friendship graph;
  - MUC;
  - various notifications;
  - user-search;
  - ...
  It is still a work in progress as there is a plenty of stuff to be cut off the game server to leave it with its main functions.

2007–2012 **Working for quite a while at PowerMe Mobile**, *Minsk*.

  2011–2012 **OpenAlley SMPP gateway**.
  Tools:
  - Linux;
  - Erlang/OTP;
  - C.

  2011–2012 **Billing and rating subsystem**.
  BMS v6 brings a new type of inbound interface – SMPP.
  The special thing about it is that the customers using SMPP usually send
  a vast amout of unique messages: e.g. banks are reporting most of credit/debit-card
  transactions' details via short messages.
  The previous rating and billing system was designed to handle big amounts of
  non-unique messages. Also the old system had a considerable latency which
  is unacceptable for working with prepaid customers.
  Tools:
  - Linux;
  - Erlang/OTP;
  - C.

  2010–2011 **Bulk Messaging System v6. Linux HA integration**.
  Tools:
  - Linux HA (corosync / pacemaker);
  - Erlang.

  2009–2010 **Bulk Messaging System v6. Porting to Linux**.
  Some of the operators do not want to have any Windows in there data-centres.
  The platform has to be ported to some Unix.
  Since the system we already had by that moment was implemented using .Net – we
  chose Mono. Later most of the PMM's old customers requested an upgrade
  to the Unix-hosted system. The previously implemented in Delphi SMPP and
  MM7 gateway was rewritten from scratch in Erlang.
  Tools:
  - Linux (Mono);
  - C#;
  - MySQL;
  - Erlang/OTP.

  2007–2009 **Bulk Messaging System v5**.
  A multi-interface gateway for sending short text messages and
  multimedia messages into cellular operator's network.
  Tools:
  - Windows (.Net);
  - C#;
  - MS SQL;
  - SMPP and MM7 protocols to communicate with operator's network.

2006–2007 **Junior develop at Oxford ArchDigital**.
  Web projects based on proprietary CMS.
  Tools:
  - Linux;
  - PHP;
  - MySQL;
  - PostgreSQL.
  That was my first commercial development experience.
  The customers mostly were british governmental institutions.
  Most notable of them is Ordnance Survey – british national mapping agency.