# Julius de Bruijn

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GitHub: github.com/pimeys

Languages: Finnish (mother), English (proficient)



### EXPERIENCE AND PROJECT HILIGHTS

**Prisma** (prisma.io) Next-generation Node.js and TypeScript ORM Software Engineer (Rust)

Berlin, DE Feb 2019–

- Bootstrapped Prisma engine from Scala to Rust, bringing the Scala devs up to speed with the new language [12].
- Design, implementation [18] and documentation [17] of a low level, asynchronous and runtime-independent Microsoft SQL Server library for Rust. Design and implementation of the whole SQL Server product line in Prisma
- Discovery [6] and design [5] of the multi-schema product.
- Implementation [11] of PostgreSQL extensions in the Prisma Schema Language, introspection and migrations. Design [4] and implementation [7] of PostreSQL special index types.
- Design, implementation [14] and documentation [13] of an SQL query builder and connector library for Rust.

**360dialog** (www.360dialog.com) Mobile marketing solutions Senior Software Engineer (Rust, Clojure, Scala, Lua, C++)

Berlin, DE Apr 2016–Sep 2018

- Design and implementation of push notification service [1] sending large amount of notifications to Apple's [2], Google's [3] and Web Push [19] platforms in Rust.
- Design and implementation of a RESTful API for campaign management, where customers could upload and transpile campaigns [16].

**Fyber** (www.fyber.com) Mobile marketing solutions Senior Software Engineer (Ruby, Scala) Berlin, DE Sep 2011–Mar 2016

- Rewrote several parts of an advertisement service with Scala, including a high traffic tracker service and publisher callback system.
- Design and implementation of a statistics service and library with ZeroMQ, Ruby and Exasol.
- Part of a core team to build a new backend infrastructure, implementing the ZeroMQ and Ruby based service from scratch.

#### Different Software Development Positions

Software Engineer (Ruby, C#, Delphi, C++, Python, VBA)

Helsinki, FI Jun 2006–Sep 2011

 $-\,$  Companies, such as CPS Color, Sininen meteoriitti, Digia

#### EDUCATION

**Aalto University** 

Espoo, FI

Studies towards a Bachelor of Science

- Major: "Software Engineering and Business"

- Minor: "Multimedia Technology"

2006–2011

## PROJECTS

- Software reproducability, using Nix and NixOS [15] on my main desktop, laptop and server operating system [8]. Maintainer of a few Nix packages [9].
- Building an open source home automation system as my pandemic project, and still on that path.
- Hacking with my diabetes, operating an open source artificial pancreas [10].

#### References

- [1] A consumer to send push notifications from Kafka, https://github.com/xray-tech/xorc-notifications/.
- [2] A native, asynchronous Apple push notification client, https://crates.io/crates/a2/.
- [3] An API to talk to FCM (Firebase Cloud Messaging) in Rust, https://crates.io/crates/fcm/.
- [4] de Bruijn, Extended Indices in PostgreSQL, design proposal, https://github.com/pimeys/writing/blob/main/prisma/Proposal: %20Extended%20Indices%20PostgreSQL%20GA.org.
- [5] de Bruijn, Querying Across Multiple Schemas with Prisma, design proposal, https://github.com/pimeys/writing/blob/main/prisma/Proposition: %20Querying%20Across%20Multiple%20Schemas.org.
- [6] de Bruijn, Querying Across Multiple Schemas with Prisma, product discovery, https://github.com/pimeys/writing/blob/main/prisma/Discovery: %20Querying%20Across%20Multiple%20Schemas.org.
- [7] Extended Indices in PostgreSQL, implementation, https://github.com/prisma/prisma-engines/pull/2858.
- [8] My NixOS configuration, https://github.com/pimeys/nixos/.
- [9] Nix Packages collection, https://github.com/nixos/nixpkgs/.
- [10] Open source automated insulin delivery system (closed loop), https://github.com/nightscout/androidaps/.
- [11] PostgreSQL extensions, implementation, https://github.com/prisma/prisma/issues/12308.
- [12] Prisma Rust engines source code, https://github.com/prisma/prisma-engines/.
- [13] Quaint documentation, https://prisma.github.io/quaint/quaint/index.html.
- [14] Quaint source code, https://github.com/prisma/quaint/.
- [15] Reproducible builds and deployments. https://nixos.org/.
- [16] The main entry to the OAM, https://github.com/xray-tech/xorc-gateway/.
- [17] Tiberius documentation, https://docs.rs/tiberius/latest/tiberius/.
- [18] Tiberius source code, https://github.com/prisma/tiberius/.
- [19] Web push notification client with support for http-ece encryption and VAPID authentication. https://crates.io/crates/web-push/.