## Curtis McEnroe

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## Technical experience

- Rust, C, x86 assembly, Ruby (Rails), JavaScript (Node.js, Knockout.js)
- PostgreSQL, Redis, MongoDB
- Protobuf, American Fuzzy Lop, Git, Heroku, Digital Ocean
- FreeBSD, Ubuntu, Arch Linux, macOS

# Work experience

#### Software Developer, AdGear (Montréal) October 2015 – present

I designed and implemented a replacement for the primary ETL providing timesensitive state to a global real-time bidding system. The design solved performance, correctness, and concurrency issues in the legacy system, and served as a strong example of Rust in the company. I vectorized a hash table implementation in a specialized key-value database service to take advantage of SIMD instruction sets and measured the performance increase with microbenchmarks. I set up fuzzing jobs for many Erlang NIFs written in C to try to find edge case crashes, which can bring down the BEAM.

### Software Developer, Busbud (Montréal) December 2013 – April 2015

I migrated geographic data from MongoDB to PostgreSQL, and replaced Elasticsearch with Postgres materialized views and trigram indexes. This centralized data and improved performance. I introduced promises and functional programming to the Node.js server, which facilitated writing organized, asynchronous code. I helped redesign the interfaces and data models for integrating partner APIs into Busbud's, which were previously too restricted and lossy.