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Speaker Qualifications

Alex Gontmakher is a software engineer at Google working to introduce real time information to Google Public Transit. Alex's interests are in high performance computing, realtime systems, open data and open source systems, and of course, public transportation.

Alex has publications in diverse areas, including computer architecture, security, C++ programming and more. He holds a PhD in Computer Science from Technion, Israel Institute of Technology.

Real Time Information in Google Public Transportation System

Google provides schedule information and directions for public transport in hundreds of cities worldwide. Currently, our systems use only scheduled data, and we are working to extend them with realtime information.

In our talk, we would like to discuss our experience building a realtime public transport data system. We would cover the following topics:

- Versioning of static data vs. the realtime data
- Matching the static and realtime data, such as ID-based matching and redundant information
- Schedule degradation modes
- Semantics of incremental serving

We are developing the system with open access in mind. In our view, Google will be just one part in the ecosystem of multiple producers and consumers using open formats and standards for data exchange.