

**DMITRY CHERVOV****Senior Software Engineer with focus on iOS/Android apps and big data****TECHNICAL SKILLS**

- **Management skills:** about 7 years of experience managing developers and QA
- **Strong knowledge of Computer Science fundamentals:** efficient algorithms and data structures, their time and space complexity. Some experience with image and sound processing, Markov models and neural networks
- **Mobile apps:** business app and game development for iOS and Android
- **Server side:** experience implementing projects with scalable architecture that handle petabytes of distributed data; \*nix server and cluster configuration
- **Databases:** SQL and NoSQL, highly scalable HBase-like databases
- Was a winner of programming contests and a member of a programming contest team in university

**EMPLOYMENT**

**Software Developer,** **Google** **Feb 2017 - present**

**Senior Software Engineer**

- Google Chat for Android, iOS and Web
- Previously worked on Currents for Android and Gmail for Web, iOS and Android

**Backend Software Developer**

**Ahrefs**

**Jun 2015 - Feb 2017 (part-time)**

- Implemented large-scale web search functionality on top of an existing web crawler and 10+ PBytes of live data in the database
- Implemented a scalable web analytics system (Javascript, OCaml, Java, Aerospike, Hadoop, Zookeeper, Apache Kafka, Apache Samza, Apache Thrift)
- Investigated possible applications of neural networks for the existing projects (TensorFlow and general theory / mathematics for neural networks)
- Configured and maintained clusters of servers (Puppet, \*nix)
- Worked on a distributed data mining system (Selenium, PHP, OCaml, MySQL, Logstash, Elasticsearch, Kibana)
- Implemented challenging multithreaded optimizations for the core of the distributed database (C++14, OCaml)

**Senior Software Developer,**

**Sphere Consulting Inc**

**2010 - Oct 2016 (full-time)**

**Head of Mobile dev.department**

- Led the development of more than 12 various iOS and Android projects: financial, medical, sports, social networks, restaurant and beauty salon industry, etc. Technologies used: SQLite, push notifications, CorePlot, OCMock, CocoaPods, Ruby on Rails, PHP, Paypal SDK, Amazon S3, Amazon EC2, MySQL, PostgreSQL, PostGIS, RabbitMQ, Redis, Facebook Graph API, FBML, jQuery.
- Estimated projects, interviewed developer candidates
- Designed scalable and maintainable architecture and API

Notable projects include CashNetUSA:

<https://itunes.apple.com/us/app/cashnetusa/id645682433?mt=8>

<https://play.google.com/store/apps/details?id=com.enova.cashnet&hl=en>

- Increased the development velocity about twice and reduced the amount of bugs by designing and writing custom frameworks tailored specifically for the project, to handle network connections, models and UI objects
- Designed the architecture; led the development of iOS and Android apps; wrote automated tests

**C++ Developer /**

**Gameloft**

**2008 - 2010**

**Senior C++ Developer**

Settlers for iPhone: [https://www.youtube.com/watch?v=6XsLoy\\_XwgY](https://www.youtube.com/watch?v=6XsLoy_XwgY)

Wild West Guns for iPhone: <http://www.youtube.com/watch?v=7B4cxWC8e6I>

- Programmed UI, graphics, game logic, AI, sound on both projects (C++, Objective C, Lua, OpenGL ES, OpenAL, iPhone SDK, Instruments, Adobe Flash, ActionScript)
- Made critically important performance and memory usage optimizations (C++, ARM assembler)
- Wrote various tools and scripts to process game resources (Microsoft Visual C++, Python, XML, Windows and Unix shell scripts); wrote a map editor (C++/CLI)
- Invented a way to automatically convert animation resources and wrote corresponding tools, which were critical for projects feasibility (Microsoft Visual C++, Photoshop scripting with ActionScript)

**Freelance**

**2005 - 2008**

- PHP/MySQL developer: worked on an automated data mining tool (PHP, MySQL, a lot of regular expressions) and a backend for an online store
- ASP.NET / MS SQL developer: programmed UI, logic and database for a directory of educational institutions and employee attestation data

### Personal projects

1995 - Present

- Wrote several plugins for Miranda Instant Messenger (C++): <http://dmitry.ch/projects> . Made code contributions to Miranda IM core and its base plugins.
- A Pocket PC driver for an infrared keyboard, and an application that converts formulas from TeX format to graphical representation and shows them in a tooltip in real-time during typing (written in C++ for Windows CE platform).
- Wrote a tool for batch conversion of formulas in Microsoft Word documents from TeX format to regular Word formula objects (Microsoft Visual C++, COM, Microsoft Word API) - this tool along with the keyboard driver were used by me in university to write electronic lecture notes on a pocket PC, instead of writing on paper.
- Wrote scripts for Google Spreadsheets to automate handling of information about Canadian immigrants: <http://tinyurl.com/FSW14-Spreadsheet> . Programmed several innovative charts to better visualize the information. Made non-trivial automated estimates on when each immigrant application will be processed by the immigration centre. Wrote a script to detect duplicates and similar entries. Made optimizations to the spreadsheet so that it loads and updates its data orders of magnitude faster.
- Prototype of a game for iPhone similar to Supaplex (C++, Objective C, OpenGL ES, iPhone SDK).
- Prototype of a live wallpaper app for Android devices (OpenGL ES, JNI, Java, C++).
- Software part of an iris recognition system (my master's work at university), C++ and MySQL.
- An application that maintains information about all music located on a hard drive and allows generating an HTML report with names of artists, albums and songs (C++, MFC, MySQL).
- MIDI file player for MS-DOS (written in 2002 on C++ and x86 assembler). At that time I didn't have any possibility to get MIDI documentation from anywhere, so I reverse-engineered a MIDI driver from an MS-DOS game and also completely reverse-engineered MIDI file format from existing MIDI files.
- 3D labyrinth game for MS-DOS. It used techniques and programming tricks similar to old Wolfenstein 3D game. Written on Pascal + x86 assembler in 2002.

### EDUCATION

Ukraine

Kharkiv National University of Radioelectronics

2003 - 2008

- Bachelors in Applied Mathematics with Honours
- Masters in Information Science with Honours