

Daniel Sabelnikov

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## SKILLS

- C++ (STL), Java, javascript.
  - CMake.
  - Visual Studio with Visual Assist and Vim plugin.
  - Solid debugging skills with Visual Studio on Windows and GDB on Linux.
  - Windows, Linux, cross-platform applications.
  - Profiling and optimization techniques. Profiling linux applications with valgrind, windows applications with Visual Studio Profiling Tools.
  - bash, vim, GNU tools, GCC toolchains etc.
  - Git, svn.
  - Network applications. Linux sockets, WinSock, TCP as well as UDP. Protocols programming.
  - Multithreading.
  - Unreal Engine 4 C++ programming experience.
  - Experience working with PhysX.
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- Strong OOP and design patterns understanding. Thorough knowledge of algorithms and basic data structures. I can write complex applications from ground up.
  - Scrum/Kanban workflows.
  - Ability to work under minimal supervision.
  - Ability to collaborate and clearly express my ideas.
  - Some understanding of graphics pipeline and shaders, GLSL, OpenGL.
  - Passion for simple, clean, maintainable code, transparent architectures.
  - Years of writings commercial software have taught me to find balance between system requirements, deadlines and quality requirements.
  - I have some decent understanding of software vulnerabilities and I know how to write secure C/C++ code.
  - I'm especially good at problem solving and learning new technologies.

## EXPERIENCE

Self employed

From: 11/2016 To: Current

Freelance and hobby projects: World Of Speed, Selenium, Vhagar Game Engine.

Mail.Ru Group

Senior C++ Software Engineer

From: 08/2015 To: 11/2016

Project: World Of Speed.

We've been challenged with a task of releasing a PC game (online racing simulator) with a huge codebase received from another studio. Frankly, the project was a mess at that moment and we've had to do a lot of refactoring, replacing some parts entirely. The project uses minimum of external libraries, most of the core engine parts were developed in-house. My tasks included: total rebuild of multiplayer code, rebuilding real-time networking facility, applying security features to network stack, some parts of gameplay either written from scratch or refactored from existing code.

Multiplayer code provided a great challenge due to its high requirements, we had to provide the best possible experience for players in any network conditions which was not easy due to gameplay being so fast. I had to devise strategies to overcome network lags, packet losses, packet tampering, reordering etc.

I was also the sole person responsible for server builds of our applications that run on Linux.

Previously, the project used esoteric Windows to Linux compiler paired with Visual Studio toolchain to produce Linux builds. I've replaced it with CMake configurations which helped us to switch to native linux builds, and mostly get rid of VS projects and solutions in our repositories by generating them with CMake.

My tasks also included debugging linux-only issues and profiling our server app, finding bottlenecks to ensure that we get the maximum performance from our servers.

Alfa-Bank

Lead Software Engineer

From: 08/2014 To: 08/2015

Design, implementation and deployment of web project using Node.js.

Creara-Media

Lead Software Developer

From: 02/2014 To: 08/2014

Maintain codebase of high-load java project. Related technologies: Spring, Hibernate, HBase. Encountered some interesting tasks connected with big data processing, machine learning and others.

Airlike Inc.

Lead Software Engineer

From: 07/2013 To: 01/2014

Building mobile application from scratch with a team of about 7 people. My responsibilities included technical lead, architecture, backend and frontend development.

Related technologies: Node.js, Mongo, Objective-C.

#### Alfa-Bank

Lead Front-End Developer

From: 10/2011 To: 06/2013

Leading the UI development for acclaimed internet banking solution Alfa-Click. I got experience with CSS, JavaScript, JSF pages and components and worked hard to deliver the best user experience with focus on stability, cross-browser considerations, usability etc.

#### Cinimex

Lead Software Developer

From: 08/2008 To: 09/2011

Different projects related to banking software.

A lot of technologies included: Java SE/EE/WEB, Javascript, HTML, CSS, etc. Experience with Hibernate, Spring, Wicket, WebSphere, WebLogic, JSF, Oracle ADF and others.

#### EDUCATION

Moscow Institute of Physics and Technologies, M.S., Applied Physics and Mathematics,  
06/2011

Thesis involved gas dynamics calculations implemented in C++ with the use of CUDA and MPI.



