Danila Zykin
Languages: Russian (Native)
English (B2 Fluent)

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Education

- **Bauman Moscow State Technical University (BMSTU)** **Sept. 2016 - present**
  Bachelor of Software Engineering, Department of Computer Science, GPA 4.0/5.0 (expected) *Moscow, Russia*
  - Mathematical Modelling, Operating Systems, Functional programming, Computer Graphics, Neural Networks, Databases, Statistics and Discrete Mathematics, Logic and Theory of Algorithms, Differential Equations, Linear Algebra

Industrial experience and personal projects

- **PIK Group - Software Engineer (Part time)** **Jul. 2018 - present**
  Worked on integration and data analytics tools in Russian largest construction company. *Moscow, Russia*
  - Developed a back end of corporate social network, with a daily load of 40k users using .NET Core and Golang
  - Developed a construction process control with large data storage, distributed cacheing and intelligent analytics
  - Developed a mobile client using Xamarin, Swift(Cocoapods) to decrease response time from employees by 50%.
- **Digital Twin Prototype** **May 2019 - Sept. 2019**
  - The project's goal was to forecast future system failures in remote weather stations.
  - Developed an optimized solver of Ordinary and Partial Differential equations by taking into account each structural unit of the system in real time using the Monte Carlo method
  - Improved the library model by reducing complexity for large grid sizes. The modification gives a deviation of less than 0.5% and is based on narrowing the boundaries and accounting for the probability of a particle entering a node.
- **Intelliada - Software Engineer (Intern)** **Jan. 2018 - May 2018**
  Interned in a small startup company providing services for improved Russian education system. *Moscow, Russia*
  - In a team of four, developed a project that allows hosting online competitions in intellectual and board games. The project is part of the Ministry of Education and Science of the Russian Federation initiative
  - Developed user interaction logic, containerized games environment, load balancing mechanism.
- **mri-lib** **Dec. 2017 - Mar. 2018**
  - mri-lib is a C ++ library for human circulatory system visualization using voxels and Magnetic Resonance Imaging data, developed for the Department of Biomedical Technical Systems of BMSTU
  - Focused on high performance of the ray tracing algorithm and heavy optimization of voxel data storage
  - The project's goal was to improve the accuracy and efficiency of the analysis of structural (morphometric) and functional data of brain MRI in patients with cognitive impairment.

Scientific conferences

- **Digital Future of the Innovative Economy of Russia** **Jan. 2018**
  International Scientific and Practical Conference, participant ISBN:978-5-6040618-0-0 *Moscow, Russia*
  - Topic:"University interaction in elective courses" in the section "Information Technology and Business Strategy"
  - Organized by Plekhanov Russian University of Economics
  - 500+ participants.
- **The Wealth of Russia** **Dec. 2017**
  Russian Forum of Scientific Youth, participant ISBN:978-5-7038-4852-4 *Moscow, Russia*
  - Topic:"Student Assistance Service" in the section "Information and Biomedical Technologies"
  - Organized by Ministry of Education and Science of the Russian Federation and BMSTU
  - 200+ participants.

Programming skills

- **Languages**: C#(Proficient), Python3(Intermediate), C++(Intermediate), Golang(Intermediate), Swift(Basic).
- **Storage systems**: PostgreSQL, Microsoft SQL, RabbitMQ, Redis, Google Cloud Platform.
- **Tools and Instruments**: Unix, Docker, Kubernetes, Git.