KIRILL LYKOV

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GitHub: https://github.com/KirillLykov

TECHNICAL SKILLS

Solid experience and knowledge in C++, Computer Science algorithms, and Object-Oriented Design,
Experience in developing and optimizing high-performance algorithms for GPU using CUDA,
Implemented Computer Vision algorithms (code is on github),
Other programming languages: Python, Matlab, Java, C#

EXPERIENCE

Università della Svizzera italiana, Switzerland — October 2011 - September 5, 2017
Researcher

- Developed software for blood flow modeling using CUDA, C++, MPI (Finalist of ACM Gordon Bell'15 Award)
- Developing stochastic methods for numerical evaluation of the microfluidic devices performance for early cancer detection
- Data analysis using python (matplotlib, numpy), 3D rendering (Mitsuba, Blender)

Data East, Russia — November 2008 - August 2011
Software Engineer

- Developed a service for full text and geo-spatial search (Java, Lucene, JavaScript)
- Designed and developed extensions for a geographic information system (C++, C#, WPF)

Ledas, Russia — July 2007 - May 2008
Software Engineer

- Developed computational geometry cores for CAD systems (C++)
- Done a research in polygonal mesh construction and medial axis computation

EDUCATION

Università della Svizzera italiana, Switzerland — October 2011 - September 5, 2017
Ph.D., Computer Science
Obtained credits: Computer vision, Shape analysis, Stochastic calculus
Teaching: Linear algebra, Advanced Programming and Design

Novosibirsk State University, Russia — September 2004 - June 2009
Diploma, Mathematics and Computer Science

PUBLICATIONS

1. Kirill Lykov, et al. Probing eukaryotic cell mechanics via mesoscopic simulations. PLoS Comput Biol (submitted), 2017.
2. D. Rossinelli, Kirill Lykov, et al. The In-Silico Lab-on-a-Chip: Petascale and High-Throughput Simulations of Microfluidics at Cell Resolution. Proc. SC'15, 2015.
3. Kirill Lykov, et al. Inflow/Outflow Boundary Conditions for Particle-Based Blood Flow Simulations: Application to Arterial Bifurcations and Trees. PLoS Comput Biol 11(8), 2015.
4. Emanuel K. Peter, Kirill Lykov, et al. A polarizable coarse-grained protein model for dissipative particle dynamics. Phys. Chem. Chem. Phys., 2015.