

# Dmitry Anisimov

PHD R&D ENGINEER

## **PROFILE**

Ph.D..

research and development engineer with 7+ years of experience in various fields.

**CONTACT** 

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**SKILLS** 

C/CPP/JAVA/SWIFT/SHELL/QT

LATEX/HTML/XML/CSS

MATLAB/MAPLE/MAXIMA/PS/AI

C#/PHP/GL/JS/TS/SQL/ ANGULAR/PYTHON/RUBY

## **WORK EXPERIENCE**

## R&D ENGINEER @ GF

2019 - present

In 2019, I received a permanent contract offer in the French company GeometryFactory to continue my work in the urban reconstruction and other geometry-related topics.

## R&D ENGINEER @ INRIA

2017 - 2019

For two years, I was a research and development engineer at the scientific centre Inria in France, Sophia Antipolis. My main topic was urban reconstruction and its different levels of detail.

# SOFTWARE DEVELOPER @ FREELANCE

2014 - 2017

During my Ph.D. program at Università della Svizzera italiana in Lugano, Switzerland, I was constantly participating in different geometry-oriented projects as a backend/frontend software developer.

## TEACHING ASSISTANT @ USI

2011 - 2016

Due to my mathematical background, I was invited at Università della Svizzera italiana (USI) in Lugano, Switzerland to assist the courses in mathematics and informatics at bachelor and master levels, mostly calculus, computer graphics, and geometry processing.

# SYSTEM ADMINISTRATOR @ SPSU

2010 - 2011

After the defense of my master thesis, I was working for one year as a system administrator at the Saint-Petersburg State University (SPSU) in Saint-Petersburg, Russia.

# WEB DEVELOPER @ FREELANCE

2007 - 2010

During my studies at Saint-Petersburg State University, I was constantly developing different web services for various companies in Saint-Petersburg, Russia.

## **INTERNSHIPS**

## CGAL, INRIA

2013

During my Ph.D. program, I was visiting the scientific centre Inria in Sophia Antipolis, France to implement a C++ package with some common 2D generalized barycentric coordinates in the Computational Geometry Algorithm Library (CGAL) that is managed by the French company GeometryFactory.

## **INTERESTS**

DESIGN/PHOTOGRAPHY/
POPULAR SCIENCE/WINTER SPORTS/
SWIMMING/HIKING/READING/
BOARD AND COMPUTER GAMES/
WRITING/LEARNING NEW STUFF

#### SOCIAL

Github: https://github.com/danston

LinkedIn: https://www.linkedin.com/in/dmitry-anisimov/

Facebook: https://www.facebook.com/rudanston

Medium: https://medium.com/@rudanston

## **EDUCATION**

## Ph.D. IN INFORMATICS @ USI

2012 - 2017

I obtained a Ph.D. in informatics/mathematics at Università della Svizzera italiana (USI) in Lugano, Switzerland supervised by professor Kai Hormann. My principle research topic was generalized barycentric coordinates in 2D, but I was also involved in different geometry-oriented projects.

# DIPLOMA IN APPLIED MATHEMATICS @ SPSU 2005 - 2010

In 2010, I finished my studyings at Saint-Petersburg State University (SPSU) in Saint-Petersburg, Russia, where I received the diploma in applied mathematics from the faculty of applied mathematics and control processes. My master thesis was supervised by professor Igor L. Bratchikov and was related to solving NP-complete problems by means of DNA properties with applications to DNA computers.

# HIGH-SCHOOL DEGREE @ SCHOOL № 53

1995 - 2005

I finished the natural-sciences-oriented program of School № 53 in Saint-Petersburg, Russia.

## **LANGUAGES**

## RUSSIAN

MOTHER TONGUE

My mother tongue is Russian. I also have a good understanding of Belorussian and Ukranien.

## **ENGLISH**

PROFICIENT LEVEL

The principle language that I use for my work is English.

## ITALIAN

INTERMEDIATE LEVEL

I constantly speak in Italian with my friends, and I have good communication skills in a variety of topics.

## FRENCH

PRE-INTERMEDIATE LEVEL

I started learning this language quite recently, but I have some knowledge of grammar and descent communication skills.

# PROJECTS (see more on anisimovdmitry.com)

## **GBC**

https://github.com/danston/gbc

During my Ph.D. studies, I needed an efficient implementation of all currently available generalized barycentric coordinates that resulted in a set of stand-alone classes for all coordinates.

• Cpp, Shell

# CGAL packages

https://doc.cgal.org/latest

I constantly work on different C++ packages for the Computational Geometry Algorithms Library (CGAL). Some of them can be found on the official doc page of the project and the others are work in progress with a short introduction on my website.

• Cpp, Shell

#### IMAGE WARPER

https://github.com/danston/warpit

I was interested in efficient implementation of the image warping technique using subdivision of the underneath triangle mesh. As a result, I have currently available a stand-alone image warping tool for Mac OS and Windows operating systems.

**⟨•** Cpp, Qt, GL

## 4TODDLER APP

http://www.fourtoddler.altervista.org

During the 2014 hackathon in Zurich, my collegue Teseo Schneider and I developed an iPad app for babies, where they can explore different colorful geometric shapes and learn new things.

Objective C

## SECUREX APP

http://www.securexapp.altervista.org

My collegue Randolf Scharfig and I developed an android app that helps to protect one's life in the emergency situations.

• Java, Android

# AWARDS (see more on anisimovdmitry.com)

#### THE BEST POSTER AWARD

2012

The best poster award for the NSF Workshop on Barycentric Coordinates in Geometry Processing and Finite/Boundary Element Methods in New York, USA.

## WORKSHOPS AND CONFERENCES

## GMP

2016 / 2017, April, San Antonio USA / Xiamen China International Conference on Geometric Modeling and Processing (GMP).

## CAS

2014, June 12-18, Paris, France 8th International Conference "Curves and Surfaces".

#### NTAG

2013, February 17-22, Bad Herrenalb, Germany 4th Workshop "New Trends in Applied Geometry".

#### NSF

2012, July 25-27, New York, USA

NSF Workshop on Barycentric Coordinates in Geometry Processing and Finite Element Methods at Columbia University.

## XLI ISC

2010, April 20-23, Saint-Petersburg, Russia XLI International Scientific Conference of postgraduate students and students "Control Processes and Stability".

# MAIN PUBLICATIONS AND BOOKS

# GENERALIZED BARYCENTRIC COORDI-NATES IN COMPUTER GRAPHICS AND COM-PUTATIONAL MECHANICS

(https://www.amazon.com/dp/1498763596/)

Chapter 1

Author of the first chapter: D. Anisimov

Editors of the book: K. Hormann and N. Sukumar

## BLENDED BARYCENTRIC COORDINATES

 $Computer\ Aided\ Geometric\ Design,\ 2017,\ March,\ 205-216$ 

Authors: D. Anisimov, D. Panozzo, K. Hormann

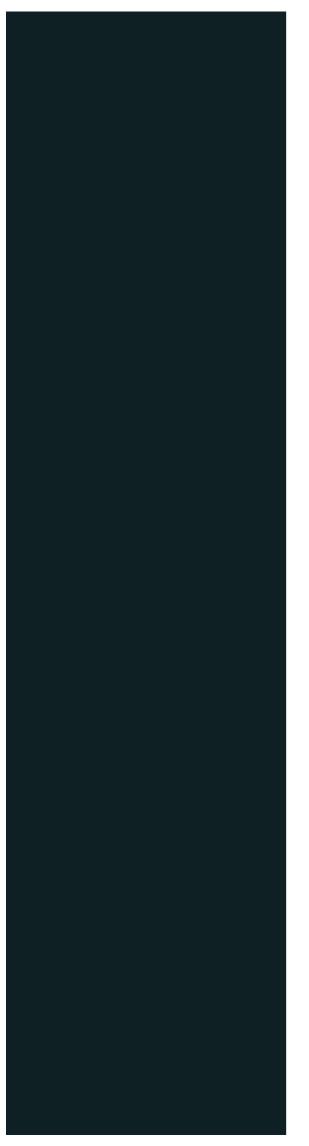
## SUBDIVIDING BARYCENTRIC COORDINATES

Computer Aided Geometric Design, 2016, March, 172-185 Authors: D. Anisimov, C. Deng, K. Hormann

# MASTER THESIS

 $In\ Russian\,,\ 2010$ 

NP-complete problems solving by means of DNA properties, Saint-Petersburg State University, Faculty of Applied Mathematics and Control Processes.



## **MENTORING**

# GSOC 2019

2019

I was working with my student on the topic "Generalized Global Regularization" as a part of the CGAL Project attending the Google Summer of Code 2019.

# **GSOC 2018**

2018

I was working with two students on the topics "Generalized Region Growing" and "Extending Generalized Barycentric Coordinates" as a part of the CGAL Project attending the Google Summer of Code 2018.