Dmitry ANISIMOV

PHD
R&D ENGINEER
GEOMETRY PROCESSING

PROFILE

Ph.D.
research and development
senior geometry engineer with
7+ years of experience

SKILLS

EXPERT LEVEL
C++

SIDE EXPERIENCE
java, swift, python, ruby,
web, math software, latex , ...

CONTACTS

rudanston@gmail.com

+33 7 67 37 22 52

anisimov.work

Paris, France

SOCIAL

github/danston

in/dmitry-anisimov

instagram/rudanston

WORK EXPERIENCE

GEOMETRY ENGINEER @ SAMP

2022 - ....., France

point cloud processing for large-scale data, semantic classification and segmentation, simplification, object detection, and backend geometry kernel

GEOMETRY ENGINEER @ ZENLY (SNAP INC)

2021 - 2022, France

geometry processing algorithms for interactive 3D world maps, procedural model generation, simulation, and backend geometry kernel

R&D ENGINEER @ GEOMETRYFACTORY

2019 - 2021, France

geometry simplification, surface mesh reconstruction with levels of detail, various packages and support for Computational Geometry Algorithms Library (CGAL)

R&D ENGINEER @ INRIA

2017 - 2019, France

fully automatic pipeline for large-scale 3D urban reconstruction from LIDAR data with multiple levels of detail (LODs)

R&D ENGINEER @ USI

2014 - 2017, Switzerland

various geometry-related projects, image warping, 2D and 3D geometry and function visualizations, Ph.D. related software at Università della Svizzera italiana (USI)

TEACHING ASSISTANT @ USI

2011 - 2016, Switzerland

mathematics and informatics at bachelor and master levels, mostly calculus, linear algebra, computer graphics, and geometry processing at Università della Svizzera italiana (USI)

SYSTEM ADMINISTRATOR @ SPSU

2010 - 2011, Russia

computer class support, system administration at Saint-Petersburg State University (SPSU)

PRIVATE TUTORING @ FREELANCE

2005 - 2010, Russia

private classes on mathematics, geometry, and informatics

LANGUAGES

- russian — **native**
- english — **proficient**
- french — **intermediate**
- italian — **intermediate**

MENTORSHIP

Google Summer of Code (GSoC)

- **2021** 3D barycentric coordinates
- **2019** generalized global regularization
- **2018** extending generalized barycentric coordinates
- **2018** generalized region growing

AWARDS

- **2016** the best paper honorable mention award at MUM, Rovanieme, Finland
- **2012** the best poster award at NSF Workshop, New York City, USA

CONFERENCES

- **2017** GMP, San Antonio, USA
- **2016** GMP, Xiamen, China
- **2014** CAS, Paris, France
- **2013** NTAG, Bad Herrenalb, Germany
- **2012** NSF, New York City, USA
- **2010** XLI ISC, Saint-Petersburg, Russia

EDUCATION

PH.D. IN INFORMATICS @ USI

2012 - 2017, Switzerland

ph.d. thesis in informatics at Università della Svizzera italiana (USI), supervised by Kai Hormann, with the subject on generalized barycentric coordinates and their applications to geometry processing

INTERNSHIP IN CGAL @ INRIA

2013, France

2D Generalized Barycentric Coordinates (GBC) package for the Computational Geometry Algorithms Library (CGAL), supervised by David Bommes and Pierre Alliez

DIPLOMA IN APPLIED MATHEMATICS @ SPSU

2005 - 2010, Russia

master thesis in applied mathematics from the faculty of applied mathematics and control processes at Saint-Petersburg State University (SPSU), supervised by Igor. L. Bratchikov, with the subject on solving NP-complete problems by means of DNA properties with applications to DNA computers

HIGH-SCHOOL DEGREE @ SCHOOL № 53

1995 - 2005, Russia

program oriented to natural sciences

MAIN PUBLICATIONS AND BOOKS

GENERALIZED BARYCENTRIC COORDINATES IN COMPUTER GRAPHICS AND COMPUTATIONAL MECHANICS

2017, Book, Chapter 1, Editors: K. Hormann and N. Sukumar

BEHAVIOUR OF EXPONENTIAL THREE-POINT COORDINATES AT THE VERTICES OF CONVEX POLYGONS

2019, Article, Journal of Computational and Applied Mathematics, with K. Hormann and T. Schneider

BLENDED BARYCENTRIC COORDINATES

2017, Article, Computer Aided Geometric Design, with D. Panozzo and K. Hormann

SUBDIVIDING BARYCENTRIC COORDINATES

2016, Article, Computer Aided Geometric Design, with C. Deng and K. Hormann

NP-COMPLETE PROBLEMS SOLVING BY MEANS OF DNA PROPERTIES (in russian)

2010, Master Thesis, Saint-Petersburg State University

INTERESTS

design, science, sport, games, reading, writing, learning, ...

HACKATHONS

2017 HackZurich, Switzerland

2014 HackZurich, Switzerland

MORE

you can find my full visual portfolio and values I can contribute to your business on my personal website

anisimov.work

MAIN PROJECTS

CGAL

https://doc.cgal.org/latest

different packages for open-source Computational Geometry Algorithms Library (CGAL) including Weight Interface, 2D Generalized Barycentric Coordinates, Shape Detection, Shape Regularization, and smaller contributions to other packages

C++

GBC

https://github.com/danston/gbc

efficient implementation of all currently (up to 2017, June) available generalized barycentric coordinates

C++, Shell

IMAGE WARPER

https://github.com/danston/warpit

image warping tool that is using subdivision of the underneath triangle mesh, available for macOS and Windows

C++, Qt, GL

4TODDLER APP

http://www.fourtoddler.altervista.org

iPad app for babies, where they can explore different colorful geometric shapes and learn new things, made with Teseo Schneider in 2014

Objective C, iOS

SECUREX APP

http://www.securexapp.altervista.org

android app that helps to protect one's life in the emergency situation, made with Randolf Scharfig in 2016

Java, Android