

ÁGOSTON SIPOS

PhD student, Computer Scientist

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EXPERIENCE

Research assistant

Dept. of Control Engineering and Informatics,
Budapest University of Technology and Economics

📅 September 2018 – Ongoing 📍 Budapest

- Taking part in a research group for geometric modeling
- Teaching introductory programming for undergraduates
- Supervising students

Graduate teaching assistant

Dept. of Algorithms and their Applications,
Eötvös Loránd University

📅 September 2016 – January 2020 📍 Budapest

- Teaching computer graphics lab
 - 7 semesters, among which 2 courses in English
- Developing additional material for education

Software development intern

Morgan Stanley

📅 June 2015 – August 2016 📍 Budapest

- Developing financial mathematical software in C++

EDUCATION

PhD in Informatics (in progress)

Budapest University of Technology and Economics

📅 Sept 2018 – Ongoing 📍 Budapest

- Passed second-year examinations
- Expected end of studies: August 2022

MSc in Computer Science (w. Honours)

Eötvös Loránd University

📅 Sept 2016 – June 2018 📍 Budapest

- Specialization in Mathematical Modelling, Signal Processing, Computer Graphics
- Thesis title:
Efficient optimization for higher order curve segments

BSc in Computer Science (w. Honours)

Eötvös Loránd University

📅 Sept 2013 – June 2016 📍 Budapest

SKILLS

- Programming

C++

Julia

OpenGL



Matlab

Haskell

PHP

Python

- Tools

Unix/Linux

Git

LaTeX

Blender

- Expertise

Computer Graphics

Geometric Modeling

Numerical algorithms

- Personal

Research

Teaching

Presenting

LANGUAGES

English

German



RESEARCH INTERESTS

Continuous surface representations

Differential geometry, surface analysis

3D surface modeling systems

Computer graphics and visualization

EXTRACURRICULARS

Member of Bolyai College (Eötvös L University)

- Student board member (1 year)
- Website administrator

Orienteering

- Volunteer experience in competitions

HOBBIES

🎲 Board games

📖 Reading history

🚴 Cycling

PROJECTS

Modeling general topology free-form surfaces in 3D

OTKA-124727

📅 April 2018 – Ongoing

Working with the following research topics:

- Triangle mesh processing
 - Control-point based multi-sided surfaces
 - Implicit surfaces
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Autonomous Vehicle Control Technologies

EFOP-3.6.3-VEKOP-16-2017-00001

📅 September 2017 – February 2018

Working with 3D sensing and stereo reconstruction

PUBLICATIONS

📄 Journal Articles

- Sipos, Ágoston et al. “Multi-sided implicit surfacing with I-patches”. In: *Computers & Graphics* 90 (2020), pp. 29–42. DOI: 10.1016/j.cag.2020.05.009.
 - Várady, Tamás et al. “Multi-sided Bézier surfaces over curved, multi-connected domains”. In: *Computer Aided Geometric Design* 78 (2020). 101828. DOI: 10.1016/j.cagd.2020.101828.
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👥 Conference Proceedings

- Sipos, Ágoston et al. “Creating good quality meshes from smooth implicit surfaces”. In: *Proceedings of the Workshop on the Advances of Information Technology*. 2021, pp. 47–51.
- Sipos, Ágoston. “A G^n rational spline with an algebraic distance field”. In: *Proceedings of the Workshop on the Advances of Information Technology*. 2020, pp. 112–116.
- Hajder, Levente et al. “Edge Detection by Plane Fitting”. In: *Proceedings of the IX. Hungarian Conference on Computer Graphics and Geometry*. 2018, pp. 182–186.

For a more complete list of my conference, workshop and seminar talks, please refer to my website.