Ruslan Guseinov

IST PARK, Plöcking 1
3400 Klosterneuburg, Austria
✉ ruslan.guseinov@automold.eu
🖥 ruslanguseinov.com

Work Experience

Jan 2021–Present **Business Fellow**, *Institute of Science and Technology Austria, Am Campus 1, 3400 Klosterneuburg, Austria*, Recipient of TWIST fellowship, technology transfer for automatic design of injection molding tooling.

Sep 2020–Dec 2020 **Postdoctoral Researcher**, *Institute of Science and Technology Austria, Am Campus 1, 3400 Klosterneuburg, Austria*, Algorithms for processing CAD geometry representation in application to automatic design of injection molding tooling.

Sep 2014–Sep 2020 **PhD Student**, *Institute of Science and Technology Austria, Am Campus 1, 3400 Klosterneuburg, Austria*, Algorithms and fabrication techniques for self-transforming mechanical structures and freeform glass façades.

Jan 2013–Aug 2014 **Researcher/Software Engineer**, *OctoNus Software Ltd, Luzhnetskaya naberezhnaya 2/4, 119270 Moscow, Russia*, Algorithms for diamond cutting processing and optimization.

Aug 2010–Jan 2013 **Consultant/Systems Analyst**, *Sitronics IT Consulting, currently NVision Group, Novoslobodskaya Str. 29/2, 127055 Moscow, Russia*, Integration of Oracle Siebel CRM system, Systems Analysis, system testing.

Nov 2009–May 2010 **Intern/Analyst**, *Mobile TeleSystems PJSC, Vorontsovskaya Str. 5/2, 109147 Moscow, Russia*, Market forecasting for international mobile telecommunication.

Education

2014–2020 **PhD in Computer Science**,
Institute of Science and Technology Austria, Bernd Bickel research group, Computer Graphics and Computational Fabrication.

2005–2010 **Specialist in Applied Informatics (in Economics), equivalent to MSc degree**,
Moscow Institute of Physics and Technology (State University), Diploma with honors (5.0 of 5.0).

2003–2005 **High school**,
Pushkin Bryansk City Lyceum 1, Russia, Silver medal (4.95 of 5.0).

Awards

2021 **Eurographics Best PhD Thesis**.

Teaching

Spring 2018 **Data Science and Scientific Computing**, *teaching assistant*, IST Austria.

Spring 2016 **Computational Aspects of Digital Fabrication**, *teaching assistant*, IST Austria.

Publications

2020 **Computational design of curved thin shells: from glass façades to programmable matter**, *R. Guseinov*, IST Austria (PhD thesis).

2020 **Computational Design of Cold Bent Glass Façades**, *K. Gavriil*, R. Guseinov*, J. Pérez, D. Pellis, P. Henderson, F. Rist, H. Pottmann, B. Bickel*, ACM Trans. Graph. 39, 6. (Proc. SIGGRAPH Asia), (from thesis).

2020 **Programming temporal morphing of self-actuated shells**, *R. Guseinov, C. McMahan, J. Pérez, C. Daraio, B. Bickel*, Nature Communications 11, 237, (from thesis).

2017 **CurveUps: Shaping Objects from Flat Plates with Tension-Actuated Curvature**, *R. Guseinov, E. Miguel, B. Bickel*, ACM Trans. Graph. 36, 4. (Proc. SIGGRAPH), (from thesis).

Talks & Outreach

2020   **Computational Design of Cold Bent Glass Façades**, *SIGGRAPH Asia*.

2020   **Computational design of curved thin shells: from glass façades to programmable matter**, *SIGGRAPH*, PhD Thesis Fast Forward.

2020   **Self-morphing structures**, *Max Planck Institute of Colloids & Interfaces*.

2018   **Doing a PhD in Computational Fabrication**, *IST Austria*, talk for high school students.

2018   **Fabrication of Shells-Transformers aka CurveUps**, *BRG Klosterneuburg international school*.

2017   **Fabrication of Shells-Transformers aka CurveUps**, *IST Austria*, Think & Drink talk.

2017   **CurveUps: Shaping Objects from Flat Plates with Tension-Actuated Curvature**, *Geometry Workshop Obergurgl*.

2017   **CurveUps: Shaping Objects from Flat Plates with Tension-Actuated Curvature**, *SIGGRAPH*.

2016   **A talk to inspire you about science**, *IST Austria*, talk for high school students.