Elena Balashova (Sizikova)

PhD Student, Computer Graphics and Vision Group

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Education

Princeton University, Department of Computer Science — Princeton, NJ
PhD Student and National Science Foundation (NSF) Fellow advised by Prof. Thomas Funkhouser — *2013 - Present*

University of Oxford — Oxford, UK
BA Mathematics and Computer Science — *2010 - 2013*

Work Experience

Siemens Healthcare, Vision Technologies and Solutions (VTS) Group — Princeton, NJ
Research Intern — *June 2015 - April 2016, June 2017 - November 2017*

Adobe Research, Creative Technologies Lab (CTL) — Seattle, WA
Research Intern — *June 2016 - September 2016*

Heidelberg Institute for Theoretical Studies (HITS) — Heidelberg, Germany
Intern Software Developer — *June 2013 - October 2013*

Select Publications

- **E. Balashova**, J. Wang, V. Singh, B. Georgescu, B. Teixeira, A. Kapoor: 3D Organ Shape Reconstruction from Topogram Images. International Conference on Information Processing in Medical Imaging (IPMI) 2019.
- **E. Balashova**, A. Bermano, V. Kim, S. DiVerdi, A. Hertzmann, T. Funkhouser: Learning a Stroke-Based Representation for Fonts. Computer Graphics Forum (CGF) 2018, to be presented at Eurographics 2019.
- **E.Balashova**, V. Singh, B. Teixeira, J. Wang, T. Chen, T. Funkhouser. Structure-Aware Shape Synthesis. International Conference on 3D Vision (3DV) 2018.
- B. Teixeira, V. Singh, K. Ma, B. Tamersoy, T. Chen, Y. Wu, **E. Balashova**, D. Comaniciu: Generating Synthetic X-ray Images of a Person from the Surface Geometry. CVPR 2018. Spotlight Presentation.
- **E. Sizikova**, T. Funkhouser: Fresco Reconstruction Using a Genetic Algorithm. ACM Journal on Computing and Cultural Heritage (JOCCH). April 2017.
- **E. Sizikova**, V. K. Singh, B. Georgescu, M. Halber, K. Ma, T. Chen: Enhancing Place Recognition using Joint Intensity - Depth Analysis and Synthetic Data. ECCV Workshop on Virtual/Augmented Reality for Visual Articial Intelligence (VARVAI), 2016. Best Paper Award.
- **E. Sizikova**, T. Funkhouser: Fresco Reconstruction Using a Genetic Algorithm. EUROGRAPHICS Workshop on Graphics and Cultural Heritage (GCH), 2016. Best Paper Award.
- **E. Sizikova**, T. Funkhouser: Automatically Assembling Frescos from Noisy Pairwise Fragment Measurements. Computer Applications and Quantitative Methods in Archaeology (CAA), 2015. Oral Presentation.
- O. Fried, S. Di Verdi, M. Halber, **E. Sizikova**, A. Finkelstein: IsoMatch: Creating Informative Grid Layouts. EUROGRAPHICS, 2015.
- C. Quaranta*, I. A. Ibarra*, E. Schwartz*, E. **Sizikova***: Improving Cross-lingual Search Quality. Joint Mathematical Meetings (JMM) 2013. Invited Talk. (* denotes equal contribution.)
- R. Lyngse, J. Anderson, **E. Sizikova**, A. Badugu, T. Hyland and J. Hein. Frnakenstein: Multiple target inverse RNA folding. BMC Bioinformatics, 2012. High access factor noted by BMC Bioinformatics.

Awards and Honors

School of Eng. and Appl. Science (SEAS) Fellowship
Support to attend the Grace Hopper Conference in Phoenix, AZ. — *October 2015*

Center for Digital Humanities (CDH) Fellowship
Support to Computer Appl. in Archaeology (CAA) Conference in Siena, Italy. — *December 2014*

Skills and Interests

- **Programming and Software:** Pytorch, tensorflow, caffe, matconvnet;
  scikit-learn, numpy, pyVTK,mayavi;
  Python, C++, Java, MATLAB, R, Haskell;
- **Languages:** English (bilingual), Russian (native), Spanish (intermediate), French (intermediate), Ukrainian (intermediate).
- **Hobbies**: Salsa dancing, travel, cooking.