Kostis Katrioplas

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dikatrio.xyz
github.com/kkatrio

Interests

Programming, maths, geometry, algorithms, machine learning, artificial intelligence, web, distributed systems, open source hardware, C++, Python, Go, Rust

Work experience

Software engineer, GeometryFactory.
January 2018 – June 2018. Sophia-Antipolis, France.
- Work on polygon mesh processing using combinatorics for hole filling
- Implementation of machine learning based algorithms to compute the optimal bounding box
- Develop functionalities towards mesh repairing & efficient convex hull calculation

Mentor: Sébastien Loriot.

Google summer of code student, The CGAL project.
May 2017 – August 2017.
- Implementation of optimization algorithms to perform mesh and shape smoothing (blog/smoothing-gsocproject)

Mentors: Jane Tournois and Pierre Alliez.

Web developer – part time, Mirror Mirror plus, Thessaloniki, Greece.
October 2015 – February 2017.
- Setup magento, prestashop applications (mirrormirrorplus.gr)
- Usual tasks: Server maintenance, site migrations, security and optimization

Software engineering intern, Zurich MedTech AG.
March 2015 – September 2015. Zurich, Switzerland.
- Implementation of novel algorithms for pre-processing of FEM meshes
- Development of Python scripts to facilitate complex image data visualization

Supervisors: Esra Neufeld and Bryn Lloyd.

Teacher, private lessons. Thessaloniki, Greece.
2013 – 2014
- Maths & physics lessons to high school students, electromagnetism exercises to university students

Education

Master's Degree in Computational Physics, Department of Physics, Aristotle University of Thessaloniki.
October 2013 – February 2015, GPA — 9.56/10
Thesis: *Finite element image reconstruction in microwave ablation treatment* (text).
Supervisor: Prof. Theodoros Samaras.

Diploma (Ptychion) in Physics, Department of Physics, Aristotle University of Thessaloniki.
September 2007 – June 2013, GPA — 7.68/10
Thesis: *Numerical calculation of the induced currents during TMS on human head model using the impedance method.*
Supervisor: Prof. Theodoros Samaras.

Skills

- Programming: C++, C, Python, learning Go & Rust
- Design: Gimp, Inkscape
- Enviroments: git, Linux, vim, LaTeX

Languages

English, Italian, Spanish, Greek

Published work

Katrioplas K., Samaras T., Monitoring of Microwave Ablation treatment with Electrical Impedance Tomography, in Proceedings of COST EMF-Med 2018, Croatia. To appear in IEEE Xplore.