

Experience

Nextjournal

Remote

FRONTEND SOFTWARE ENGINEER / TECHNICAL WRITER

Nov 2020 - present

- Responsible for the documentation of the Nextjournal platform.
- Frontend development for Nextjournal, as well as for a legacy modernization project for leading European automobile logistics firm.

Nedap

Groenlo, The Netherlands / Remote

FULL-STACK SOFTWARE ENGINEER

Nov 2018 - Oct 2020

- Software development for the Nedap Staffing Solutions group. Technologies used: Clojure (script), React

The Netherlands Cancer Institute, Department of Radiation Oncology

Amsterdam, The Netherlands

PHD CANDIDATE, MEDICAL IMAGING

Oct 2013 - Oct 2018

- Thesis title: **Exploring the potential and feasibility of multi-objective deformable image registration for breast cancer treatment**
- Joint project of the Netherlands Cancer Institute, Academic Medical Center Amsterdam and Centre for Mathematics & Computer Science, Amsterdam.

National Research Institute for Mathematics & Computer Science (CWI), Life Sciences Group

Amsterdam, The Netherlands

INTERN

Feb 2013 - Aug 2013

- Computational modelling and simulations for biological systems

Education

University of Amsterdam

Amsterdam, The Netherlands

PHD FACULTY OF MEDICINE

Sep 2013 - Nov 2020

Utrecht University

Utrecht, The Netherlands

MSC. IN MATHEMATICAL SCIENCES

Sep 2011 - Dec 2013

Aristotle University of Thessaloniki

Thessaloniki, Greece - Ferrara, Italy

BSC. IN MATHEMATICS (WITH SIX MONTHS IN ITALY AS PART OF THE ERASMUS EXCHANGE PROGRAMME)

Sep 2006 - Jun 2011

Honors & Awards

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| 2019 | Best Poster Award (Cum Laude) , SPIE Conference on Medical Imaging: Image processing | San Diego, USA |
| 2016 | Young Investigator Award , International Conference on the Use of Computers in Radiation Therapy | London, UK |
| 2016 | Finalist , "Humies" Awards for Human-Competitive Results Produced by Genetic and Evolutionary Computation | Denver, USA |

Skills

Clojure / Clojurescript, C, C++, Lua, Bash, Javascript

PROGRAMMING LANGUAGES

3D Slicer, VTK/ITK, Matlab, SPSS, SQL (PostgreSQL), Git, TeX, LaTeX

SOFTWARE PACKAGES AND FRAMEWORKS

Languages

- Greek: native speaker
- Italian: near native proficiency
- English: full professional proficiency
- Dutch: limited working proficiency
- German: basic

Publications

JOURNAL PAPERS

Machine-learning for multi-objective class solutions in deformable image registration

ALGORITHMS

May 2019

K. Pirpinia, P. A. N. Bosman, J.-J. Sonke, M. van Herk, T. Alderliesten

A posteriori selection of the preferred deformable image registration outcome obtained with multi-objective optimization for the case of breast MRI

SPIE JOURNAL OF MEDICAL IMAGING

October 2018

K. Pirpinia, P. A. N. Bosman, C. E. Loo, N. S. Russell, M. van Herk, T. Alderliesten

The feasibility of manual parameter tuning for deformable breast MR image registration from a multi-objective optimization perspective

PHYSICS IN MEDICINE AND BIOLOGY

Jun 2017

K. Pirpinia, P. A. N. Bosman, C. E. Loo, G. Winter-Warnars, N. N. Y. Janssen, A. N. Scholten, J.-J. Sonke, M. van Herk, T. Alderliesten

CONFERENCE PROCEEDINGS (FULL PAPERS)

Evolutionary Meta-Optimization Improves the Performance of Deformable Image Registration Algorithms

San Diego, USA

PROC. SPIE 10949, MEDICAL IMAGING 2019: IMAGE PROCESSING, 1094939

Mar 2019

K. Pirpinia, T. Alderliesten, J.-J. Sonke, M. van Herk, P. A. N. Bosman

A first step toward uncovering the truth about weight tuning in deformable image registration

San Diego, USA

PROC. SPIE 9784, MEDICAL IMAGING 2016: IMAGE PROCESSING, 978445

Mar 2016

K. Pirpinia, P. A. N. Bosman, J.-J. Sonke, M. van Herk, T. Alderliesten

Diversifying Multi-Objective Gradient Techniques and their Role in Hybrid Multi-Objective Evolutionary Algorithms for Deformable Medical Image Registration

Madrid, Spain

PROCEEDINGS OF THE 2015 ANNUAL CONFERENCE ON GENETIC AND EVOLUTIONARY COMPUTATION (GECCO '15),

Jul 2015

SARA SILVA (Ed.). ACM, NEW YORK, NY, USA, 1255-1262

K. Pirpinia, T. Alderliesten, J.-J. Sonke, M. van Herk, P. A. N. Bosman

On the usefulness of gradient information in multi-objective deformable image registration using a B-spline-based dual-dynamic transformation model: comparison of three optimization algorithms

Orlando, USA

PROC. SPIE 9413, MEDICAL IMAGING 2015: IMAGE PROCESSING, 941339

Mar 2015

K. Pirpinia, P. A. N. Bosman, J.-J. Sonke, M. van Herk, T. Alderliesten

Interests and activities

Rock climbing, traveling, hiking, dogs