

JENS PETERSEN

<https://jens.pe>

ACADEMIC BACKGROUND

Jun. 2015 – present	PhD Candidate <i>Deep Generative Models for Brain Tumor Progression Modeling</i> German Cancer Research Center (DKFZ), Heidelberg, Germany Heidelberg University, Heidelberg, Germany
Sep. 2013 – Nov. 2014	MSc Physics (Distinction, highest grade) <i>Path Length Distribution in Random Directed Acyclic Graphs</i> Focus on Computational Physics Imperial College London, UK
Oct. 2009 – May 2013	BSc Physics (very good, highest grade) <i>Performance Analysis of a Transceiver Chipset and Interference Control for a Wireless Detector Readout at 60GHz</i> Heidelberg University, Germany
Sep. 2011 – Jun. 2012	ERASMUS Student Exchange Universidad Autónoma de Madrid, Spain

PROFESSIONAL EXPERIENCE

Jun. 2015 – present	Research Assistant <i>Implementation of an infrastructure for automated image processing, with easy deployment of deep learning models into clinical routine</i> Department of Neuroradiology, Heidelberg University Hospital, Heidelberg, Germany
May – Sep. 2013	Web Design & Development (Freelance) <i>Website for Event Management Startup</i>

PROJECTS

Feb. 2018 – present	<i>heidelberg.ai</i> (Meetup & Lecture Series on AI) Co-Organizer, > 1200 Members
Jul. 2017 – present	<i>trixi</i> (https://github.com/MIC-DKFZ/trixi) Core Contributor, Experimentation Framework for PyTorch
May 2016 – present	<i>OneSurgery</i> (Augmented Reality for Minimally Invasive Surgery) Core Developer & Co-Founder, won Best Business Case & Audience Award at <i>Life Science meets IT</i> Hackathon in Heidelberg. Subsequently secured ~ €1 million funding from Ministry for Economic Affairs and Energy (BMWi), Germany
2 nd – 3 rd Oct. 2017	<i>Swiss Legal Tech</i> Hackathon Zurich 1 st Prize, Mobile App for Inheritance Distribution
Apr. 2016 – Mar. 2017	<i>Bildverarbeitung für die Medizin 2017</i> Largest German Conference on Medical Image Computing Organized Scientific Program, Industry Sponsorships, Registration
Oct. 2009 – Jul. 2011	<i>AIIESEC e. V.</i> (Local Committee Heidelberg) Vice President of Incoming Exchange 2010/2011 Member of the Executive Board, Team Leader of 10 Sourced Internships for Foreign Students at Local Companies

SKILL & INTERESTS

Languages	German (native), English (fluent), Spanish (working proficiency)
Interests	Beach Volleyball, Gymnastics, Travel Photography, Graphic Design
Technical Skills	PyTorch (advanced), Python (advanced), C++ (intermediate), Adobe Photoshop, Adobe Illustrator

SELECTED PUBLICATIONS

Peer-Reviewed Journals	<p>The Lancet Oncology, 2019 “Automated quantitative tumor response assessment of MRI in neuro-oncology with artificial neural networks” <i>P. Kickingereder, F. Isensee, I. Tursunova, J. Petersen, U. Neuberger, D. Bonekamp, G. Brugnara, M. Schell, T. Kessler, M. Foltyn, I. Harting, F. Sahm, M. Prager, M. Nowosielski, A. Wick, M. Nolden, A. Radbruch, J. Debus, H.-P. Schlemmer, S. Heiland, M. Platten, A. von Deimling, M. J. van den Bent, T. Gorlia, W. Wick, M. Bendszus, K. H. Maier-Hein</i></p> <p>Journal of Medical Imaging, 4(3), 2017 “Effective User Interaction in Online Interactive Semantic Segmentation of Glioblastoma Magnetic Resonance Imaging” <i>J. Petersen, M. Bendszus, J. Debus, S. Heiland, K. H. Maier-Hein</i></p> <p>Nature Scientific Reports, 6, 2016 “Virtual Raters for Reproducible and Objective Assessments in Radiology” <i>J. Kleesiek, J. Petersen, M. Döring, K. H. Maier-Hein, U. Köthe, W. Wick, F. A. Hamprecht, M. Bendszus, A. Biller</i></p>
Conference Proceedings	<p>MICCAI, 2019 “Deep Probabilistic Modeling of Glioma Growth” <i>J. Petersen, P. F. Jäger, F. Isensee, S. A. A. Kohl, W. Wick, J. Debus, S. Heiland, M. Bendszus, P. Kickingereder, K. H. Maier-Hein</i></p> <p>MICCAI, 2019 “Unsupervised Anomaly Localization using Variational Auto-Encoders” <i>D. Zimmerer, F. Isensee, J. Petersen, S. A. A. Kohl, K. H. Maier-Hein</i></p> <p>NeurIPS Medical Imaging Workshop, 2018 “A Case for the Score: Identifying Image Anomalies using Variational Autoencoder Gradients” <i>D. Zimmerer, J. Petersen, S. A. A. Kohl, K. H. Maier-Hein</i></p> <p>SPIE Medical Imaging, 2017 “Effective User Guidance in Online Interactive Semantic Segmentation” <i>J. Petersen, M. Bendszus, J. Debus, S. Heiland, K. H. Maier-Hein</i></p> <p>MICCAI IMIC Workshop, 2016 “A Software Application for Interactive Medical Image Segmentation with Active User Guidance” <i>J. Petersen, M. Bendszus, J. Debus, S. Heiland, K.H. Maier-Hein</i></p>
Competitions	<p>Medical Segmentation Decathlon, 2018 (winning contribution) “nnU-Net: Self-adapting Framework for U-Net-Based Medical Image Segmentation” <i>F. Isensee, J. Petersen, A. Klein, D. Zimmerer, P. F. Jäger, S. Kohl, J. Wasserthal, G. Köhler, T. Norajitra, S. Wirkert, K. H. Maier-Hein</i></p>