

Qing Dai

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Brisbane, CA 94005

EDUCATION

University of California, San Francisco

2018 - 2019

M.S. in Biomedical Imaging

Thesis Title:

Clear Cell Renal Cell Carcinoma: Deep Learning-Based Prediction of Tumor Grade from Contrast-Enhanced CT

Committee:

Peder Larson (Chair), Jane Wang, Susan Noworolski, Valentina Pedoia

University of California, Los Angeles

2013 - 2017

B.S., Biochemistry

Minor, Bioinformatics

RESEARCH INTERESTS

Medical Imaging

Magnetic Resonance Imaging

Cancer Imaging

Quantitative Imaging

Metabolic Imaging

Machine Learning

RESEARCH EXPERIENCE

Graduate Student Researcher / Junior Specialist

2018 - 2019

Department of Radiology and Biomedical Imaging, University of California, San Francisco, California

Advisor: Peder Larson, PhD.

- Focus on improving the detection of renal tumors using MRI and CT imaging and developing novel image analysis methods.

Research Assistant

2016 - 2018

Department of Integrative Biology and Physiology, University of California, Los Angeles, California

Advisor: V. Reggie Edgerton, PhD.

- Focus on developing a machine learning protocol for rapid selection of optimal pharmacological and stimulation parameters for spinal cord injury recovery.

Research Assistant

2014

Department of Chemical Engineering, Tsinghua University, Beijing, China

Advisor: Guoqiang Jiang, PhD

- Investigate engineering approaches for optimal photosynthetic conversion efficiency of microalgae in biofuel production.

PUBLICATION

Bau Pham, Bilwaj Gaonkar, William Whitehead, Steven Moran, **Qing Dai**, Luke Macyszyn, and V. Reggie Edgerton "Cell Counting and Segmentation of Immunohistochemical Images in the Spinal Cord: Comparing Deep Learning and Traditional Approaches", 40th International Engineering in Medicine and Biology Conference, Honolulu, HI, 2018, pp. 842-845. PMID: 30440523

ABSTRACTS

Qing Dai, Shuyu Tang, Andrew Leynes, Peder Larson. "A Novel Quantitative Modeling Method for Hyperpolarized Carbon-13 Pyruvate-to-Lactate Conversion Rate using Neural Networks" ISMRM 28th Annual Meeting, Sydney, Australia, 2020. Under review.

Qing Dai, Sage Kramer, Andrew P. Leynes, Kirti Magudia, Zhen J. Wang, Peder E.Z. Larson. "Deep Learning-Based Prediction of Renal Cancer Grading from Contrast-Enhanced CT". The 16th Annual Imaging Research Symposium, Department of Radiology and Biomedical Imaging, University of California, San Francisco, USA, 2019. Poster presentation.

OTHER PRESENTATIONS

Qing Dai. "Clear Cell Renal Cell Carcinoma: Deep Learning-Based Prediction of Tumor Grade from Contrast-Enhanced CT". Master of Science in Biomedical Imaging Thesis Symposium. Oral Presentation.

Qing Dai, Kiavash Garakani. "Image Segmentation using BTU-Net – Automated Cardiac Diagnosis Challenge". UCSF Bioengineering 245: Machine Learning Algorithms for Medical Imaging, Final Project. Oral Presentation.

Qing Dai, Alison Myoraku, Benjamin Sipes. "Machine Learning Classifiers and Predicting Osteoarthritis". UCSF Biomedical Imaging 265: Imaging Processing and Analysis II, Final Project. Oral Presentation.

Ravi Chachad, **Qing Dai**, Virginia Hinostroza, Ashwin Nagaraj, Jack Williams. "Magnetic Resonance Angiography: Time of Flight & Susceptibility Weighted Imaging". UCSF Biomedical Imaging 201: Principles of Magnetic Resonance Imaging, Final Project. Oral Presentation.

ASSOCIATIONS

Trainee, International Society for Magnetic Resonance in Medicine. <i>Trainee</i>	2019 - Present
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Member, American Association for the Advancement of Science	2015 - 2018
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Member, American Chemical Society	2014 - 2017
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COMMUNITY SERVICE

Inaugural Member, Association of Undergraduate Bioinformatics, UCLA	2016 - 2017
"E" License Coach, California State Soccer Association (South)	2016 - Present
Member, International Students Film Association	2016 - 2017
Captain, Chinese Students and Scholars Association Soccer Team	2013 - 2017

REFERENCES

Peder E. Z. Larson, PhD

Associate Professor in Residence
Department of Radiology and Biomedical Imaging
University of California, San Francisco
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Zhen J. Wang, MD

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V. Reggie Edgerton, PhD

Distinguished Professor
Department of Neurosurgery
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