JAN CROSS-ZAMIRSKI

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SUMMARY

I am PhD student under the supervision of Professor Carola-Bibiane Schönlieb in the Cambridge Image Analysis group at DAMTP, University of Cambridge. We collaborate with the AstraZeneca QBio group.

My research interests include using multi-modal data and image metadata to adapt and enhance models in applied computer vision tasks. My work includes self-supervised learning, representation learning and image-to-image models applied to cell microscopy data for drug discovery.

EDUCATION

Cambridge Image Analysis Group, DAMTP, University of Cambridge *2018 - 2022*
Ph.D. Candidate
Supervisors: Professor Carola-Bibiane Schönlieb, Dr. Yinhai Wang

Natural Sciences - Physics, University of Cambridge *2017 - 2018*
Master of Science (MSci), Part III
Research Project: Machine Learning Tools for Predicting Cognitive Health with Professor Zoe Kourtzi
Director of Studies: Professor Pietro Cicuta

Natural Sciences - Physics, University of Cambridge *2014 - 2017*
Bachelor of Arts (BA), Part II
Projects: Computational, Experimental
Director of Studies: Professor Mark Warner

EXPERIENCE

AstraZeneca *January 2019 -*
Quantitative Biology research group

Bank of America Merrill Lynch *June 2017 - August 2017*
Summer Analyst. Equities electronic trading, portfolio and ETF trading

BNP Paribas *June 2016 - September 2016*
Summer Analyst. Automated market making, fixed income flow trading

Isaac Physics *August 2013 - September 2014*
Content creator at https://isaacphysics.org/

PUBLICATIONS AND PREPRINTS

Self-Supervised Learning of Phenotypic Representations with Weak Labels
Accepted to LMRL at NeurIPS 2022 (2022).
Jan Cross-Zamirski, Elizabeth Mouchet, Guy Williams, Carola-Bibiane Schönlieb, Riku Turkki & Yinhai Wang https://arxiv.org/abs/2209.07819

Label-Free Prediction of Cell Painting from Brightfield Images
Sci Rep 12, 10001 (2022).
Jan Cross-Zamirski, Elizabeth Mouchet, Guy Williams, Carola-Bibiane Schönlieb, Riku Turkki & Yinhai Wang https://www.nature.com/articles/s41598-022-12914-x

SELECTED AWARDS

UKRI-BBSRC DTP Studentship Award *2018 - 2022*
Fully Funded Ph.D. studentship from the BBSRC, supported by AstraZeneca.
Total award value: £100,000

Hawks Charitable Trust Recipient *2019 - 2022*
Awarded anually for academic and sporting excellence while competing for CUCC and CUAC.
Total award value: £1000

Corpus Project Prize for Natural Sciences (Physics) *2018*
For those in their final year who achieved first-class marks for a dissertation or project
Total award value: £150

Full Blue *2018 - 2021*
Cambridge University Cricket Club (CUCC).
Full Blue and First Class debut

Academic Scholar *2006 - 2013*
Academic Scholar at the Perse School

TALKS AND CONFERENCES

NeurIPS 2022 *November-December 2022*
Selected to give talk and present poster at LMRL workshop. Main conference attendee.

AstraZeneca PhD Student Symposium *April 2021*
Presented poster

CytoData2020, **MICCAI 2020** *October 2020*
Attendee

MedTech Boost - Cambridge MemTech *September 2019*
Awarded prize for the best impact on healthy ageing with innovative solutions
for early detection of dementia.

TEACHING

Undergraduate Supervisor *2019 - 2020*
Natural Sciences Tripos, University of Cambridge.
Supervised the Mathematical Biology course at Jesus College and St. Catharine's College.

Freelance Tutor *2014 -*
A-Level Mathematics and Physics, university admissions tutoring,
English as a Foreign Language (TEFL).

EXTRA INFORMATION

Languages	Python, Matlab, R.
Packages	PyTorch, Keras, Pandas, SciPy, NumPy
Software	CellProfiler, ImageJ, MRIcron