

JAN CROSS-ZAMIRSKI

jc856@cam.ac.uk ◊ <https://crosszamirski.github.io/>

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 annually 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