THOMAS ROGERS

CONTACT

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Google Scholar

github.com/twrogers

TECHNICAL SKILLS

Programming: Python, Matlab, Mathematica, C/C++, Fortran, Java, HTML/CSS.

Machine learning frameworks: Tensorflow, Keras, scikit-learn, matconvnet.

Machine learning: Computer Vision, Classification, Object Detection, Image Segmentation, Unsupervised Learning, GANs, Regression.

Deployment: tensorflow-serving, gRPC/protobuf, Flask, Docker, Kubernetes, CI/CD.

Regulatory: EU MDD/MDR including Clinical Evaluation Report (CER), Usability Engineering, Risk Management.

KEY AWARDS & PRIZES

- Silver Award for Engineering (top PhD student in UK), Set for Britain, House of Commons
- Tessella Prize for Software, Most outstanding MSci Thesis, Imperial College
- Special Prize for best performance in Computational Physics, Imperial College
- Prize for best performance in MRes taught modules, UCL

REFERENCES

Available upon request.

RELEVANT EXPERIENCE

Chief Artificial Intelligence Officer, Visulytix, 2019 - Present

- Oversee the software and data science teams for translation of machine learning research and proof of concepts into software products in ophthalmology.

Senior Data Scientist, Visulytix, 2017 - 2019

- Lead a team in the research and development of algorithms for AI decision support in ophthalmology.
- Company lead on deployment and internal software tools.
- Clinical evaluation, risk analysis and usability engineering.

Data Scientist, Visulytix, 2017

- Research and development of algorithms for AI decision support in ophthalmology.

Postdoctoral Researcher, UCL, 2016 - 2017

- Research on unsupervised anomaly detection and supervised threat (e.g. weapons) detection from security images, and virtual reality solutions for security screening.

PhD Student, UCL, 2012 - 2016

- Classical computer vision and deep learning for detection of threats in security imagery, and inverse problems for image quality improvement.
- **Thesis:** Automated analysis of X-ray images for cargo security

Research Student, Imperial College, 2012 - 16

- Developed the Density Matrix Quantum Monte Carlo method for applications to condensed matter physics and quantum information. Contributed to the HANDE code.

Research Scientist, DSTL, 2011

- Synthetic Aperture Radar (SAR) image processing for security applications. Developed novel polarimetric techniques.

Research Scientist, Universität Dortmund **&** CERN, 2010

- Studied CP violation and measurement of the inclusive phi production cross section in inelastic *pp* collisions at LHCb.

EDUCATION

PhD Computer Science & Security Science, UCL, 2017

MRes (Distinction) Security Science, UCL, 2013

MSci (1st Hons) Phys. & Theo. Phys., Imperial College, 2012