

EDUCATION	<b>University of Cambridge, Computer Lab</b> 2020 - present PhD Computer Science <i>Adviser:</i> Prof. Pietro Lió <i>Research areas:</i> machine learning in medicine, dynamical modelling
	<b>University of Cambridge, Computer Lab</b> 2019 - 2020 MPhil Advanced Computer Science: Distinction <i>Adviser:</i> Prof. Pietro Lió <i>Research areas:</i> machine learning, drug discovery, genomics <i>Thesis:</i> “Gene Regulatory Network Inference with Latent Force Models” <i>Specialism:</i> Probabilistic Machine Learning, Digital Signal Processing, Natural Language Processing, Mobile Systems
	<b>University College London</b> 2016 - 2019 BSc Computer Science: First class honours, top 10% of cohort <i>Adviser:</i> Prof. Philip Treleaven <i>Thesis:</i> “Cross-Auction Arbitrage with Machine Learning” <i>Specialism:</i> Statistics, Machine Learning, Linear Algebra, Stochastic Calculus, Uncertainty Analysis
RESEARCH	<b>University of Cambridge, AI Research Group</b> Dec 2019 - present <i>Research:</i> Applying machine learning methods to next generation sequencing data to model gene regulatory networks with ODEs. Developed coregionalized Gaussian processes for modelling correlated time-series. Comparative analysis of incorporating uncertainty in graph and image convolutional neural networks with proofs of the presence of aleatory uncertainty [in review at AAAI]. Developed a stochastic Neural ODE formulation [accepted at NeurIPS workshop track] [1] Norcliffe, A., Bodnar, C., Day, B., Moss, J., & Lió, P. (2020) Neural ODE Processes. In <i>NeurIPS workshop on Machine Learning and the Physical Sciences</i> [2] Moss, J., and Lió, P. (2020). Gene Regulatory Network Inference with Latent Force Models. arXiv:2010.02555
	<b>Cassandre Investments</b> Nov 2018 - May 2019 Built an asset price prediction model using autoregressive Gaussian processes for forecasting. Feature engineering including grammar-based named entity extraction and sale frequency calculations. NLP for clustering items based on description.
	<b>Ocado Technology</b> Jul 2018 - Sep 2019 Used machine learning methods such as Naive Bayes and SVMs. Developed an ensemble classifier to determine the sentiment of Ocado-related tweets at 80% accuracy. Wrote an algorithm to incorporate a new sentiment class in pre-trained models.
	<b>Freelance R&amp;D</b> 2016-2019 <i>University College London:</i> Investigation into machine-executable natural language legal contracts. <i>ViCardio:</i> Developed a smartphone data processing framework for a wireless, medically certified, non-invasive arterial blood pressure wristband. The system conducts tests on the device to ensure best placement for a clearer waveform. <i>Visijax:</i> Developed (i) a smart cyclist jacket with an inbuilt MCU controlling fabric-integrated LEDs; and (ii) a mobile app which provides navigation prompts and geofencing to the MCU. <i>Movebubble:</i> Worked on the C# Web API backend which processes and serves vast quantities of property information to two hybrid mobile apps.
ACHIEVEMENTS	<b>Stanford Machine Learning Course</b> Stanford Coursera courses on Sequence Models and Deep learning. Certs: GUF2CZ62FQHD, 8US78QT64Q3K
	<b>Exhibitions</b> <i>Future Health Summit 2018:</i> ViCardio was awarded Innovator of the Year. <i>Wearable Technology Show 2016:</i> Exhibited the Visijax jacket.
SKILLS	<b>Technologies:</b> Python, Java, C#, JavaScript, C, TensorFlow, PyTorch, numpy, pandas, scikit-learn, React, RxJS, .NET, Django, Kubernetes, git, SQL, Bluetooth, NFC <b>Interests:</b> history of science, jiu Jitsu, climbing, hiking, cycling, medtech

