Bayesian Modelling, Machine Learning, and Phylogeny for understanding infectious diseases

Faculty:

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Project Description:

The main theme of my lab is to integrate infectious disease modelling, machine (deep) learning, and phylogeny to more robustly model infectious disease spread across the world. We aim to develop flexible and scalable models for understanding various spatiotemporal data, for example, epidemics (COVID-19, Malaria, HIV) and crime. We work on applying and developing statistical machine-learning techniques for the broader and messier world of science and public policy, especially global health. Ph.D. students in my group are encouraged to think and pursue ideas they are passionate about in these or periphery fields. Students get a chance to interact (visit) with a diverse set of collaborators at "Machine Learning & Global Health Network", which I co-founded with researchers from Imperial College London, the University of Oxford, Technical University of Kaiserslautern, and the University of Copenhagen. Please get in touch with me to discuss these or other projects.