

AI for Antibody and Protein Design

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Help build the next generation of AI tools for designing therapeutic antibodies and proteins. The project develops and evaluates machine-learning methods to generate sequences with improved specificity, stability, solubility and reduced immunogenicity. Approaches may include repertoire-scale foundation models, geometrical deep learning, diffusion models, and multi-objective optimisation, linked to experimental feedback from our protein-biophysics assays. Outcomes will be open, usable tools applied to real design problems with implication for fundamental and applied research, also in partnership with industry. There is scope to refine the methodological focus to your interests (e.g., generative models, active learning, interpretable AI, sequence–structure integration). Applicants should enjoy coding (Python) and quantitative thinking; prior ML experience is welcome but not essential if motivation is high.