A U S H A N G

FREIE UNIVERSITÄT BERLIN

Fachbereich Mathematik und Informatik

Promotionsbüro, Arnimallee 14, 14195 Berlin

D I S P U T A T I O N

Donnerstag, 20. März 2025, 13:00 Uhr

Ort: Seminarraum 005

(Fachbereich Mathematik und Informatik, Takustr. 9, 14195 Berlin)

Disputation über die Doktorarbeit von

Tom Altenburg

Thema der Dissertation:

Interpretable Deep Learning Approaches for the Robust Identification of Peptidoforms in Mass Spectrometry-based Proteomics

Thema der Disputation:

Crossmodal learning for zero-shot classification and searching

Die Arbeit wurde unter der Betreuung von **Prof. Dr. B. Renard** durchgeführt.

Abstract: Predictions between two different domains, such as images and text, require flexible deep learning models. To furthermore solve downstream tasks that are not fully pre-specified during training require a framework that learns representations of raw data points, enabling to formulate the specifics of a task after the model has been trained. Radford et al.
(2021) pre-train deep models that jointly embed images and text into a joint embedding space. This allows them to perform zero-shot predictions in the notion of classifying images for (during pre-training)-unknown class categories. Not only is their approach competitive with the demonstrated supervised baselines, but it also lays out the groundwork for recent foundation models. In this talk, I will discuss the effectiveness of crossmodal pre-training of deep learning models for task-agnostic settings.

Die Disputation besteht aus dem o. g. Vortrag, danach der Vorstellung der Dissertation einschließlich jeweils anschließenden Aussprachen.

Interessierte werden hiermit herzlich eingeladen

Der Vorsitzende der Promotionskommission
Prof. Dr. B. Renard