**T1: Visual Analytics to Support Tumor Boards in Dermatology**

- **Goal:** Develop a tumor board visual analytics system that
  
a. effectively displays longitudinal patient data
  
b. identifies and visualizes characteristics and treatment histories of the most similar previously treated patients

- **Evaluation:** on a real hospital database

- **Requirements:**
  
  - Strong interest in Data Science
  
  - Practical experience with EDA and data visualization
  
  - Successful completion of at least one of these courses: Data Mining I, Machine Learning, Visual Analytics, DL
  
  - Programming experience in Python, R or D3

- **Target group:** 2-3 Master FIN students

- **Application:** Until 21 April 2022
T2: Domain Adaptation for Tinnitus Diagnostics

- **Domain adaption**: methods that deal with differences in distributional properties between the **source domain A** (≈ training set) and the **target domain Z** (≈ test set)

- **Typical challenges**:
  a. **Prior shift**: A and Z are different w.r.t. the distribution of the target variable
  b. **Covariate shift**: A and Z are different w.r.t. the distributions of features
  c. **Concept shift**: A and Z are different w.r.t. the relationship between features and the target
  d. **Subspace mapping**: A and Z are different w.r.t. the feature spaces

- **Goal**: Develop a domain adaptation system that compensates for these challenges in tinnitus patient data from two different centers

- **Requirements**:
  - Strong interest in Data Science
  - Successful completion of at least one of these courses: Data Mining I, Machine Learning, Visual Analytics, DL
  - Programming experience in Python or R

- **Target group**: 2-3 Master FIN students

- **Application**: Until 21 April 2022