## **Nodes (Entities):**

- Department of Computer Science
- Faculty (subnodes: Prof. Alice Smith, Prof. Bob Johnson, Dr. Clara Lee)
- **Programs** (BSc in CS, MSc in AI, PhD in CS)
- Courses (Intro to Programming, Algorithms, Machine Learning, Data Ethics)
- **Research Groups** (AI Lab, Systems & Networking Group, HCI Group)
- **Students** (undergraduate, postgraduate)
- University X
- Administrative Staff (Department Secretary, Lab Manager)

## **Edges (Relations):**

- Department of Computer Science is part of  $\rightarrow$  University X
- Faculty **teaches** → Courses
- Courses **belong to** → Programs
- Research Groups **conducts research in** → Areas (AI, Cybersecurity, HCI)
- Faculty **member of** → Research Groups
- Students **enrolled in** → Programs
- Students **take** → Courses
- Administrative Staff **supports** → Department of Computer Science
- Department of Computer Science **collaborates with** → External Partners (Industry, Other Universities)

## **Attributes (selected):**

- Department of Computer Science: {Founded: 1985, Location: Engineering Building, Website: cs.universityx.edu}
- Faculty (e.g., Prof. Alice Smith: {Title: Full Professor, Research Area: Machine Learning})
- Course (Intro to Programming: {Credits: 6 ECTS, Level: Undergraduate, Language: English})
- Research Group (AI Lab: {Director: Prof. Alice Smith, Publications: >200})