Summary of Teaching Experience and Interests

Teaching Philosophy

My teaching philosophy centers on creating an inclusive, hands-on learning environment that bridges theoretical concepts with practical implementation. I believe in empowering students to become independent problem-solvers by providing them with the foundational knowledge and critical thinking skills needed to tackle real-world challenges in computer science and engineering.

Teaching Experience

- **University of Luxembourg** (2022–Present)
  - *Data Structures and Algorithms*: Conducted laboratory sessions and tutorials focusing on implementation and complexity analysis
  - *Computer Systems and Architecture*: Assisted in hands-on sessions covering processor architecture, memory hierarchy, and performance optimization
  - *Operating Systems*: Guided students through process management, synchronization, and file system implementation projects
- **Indian Institute of Information Technology Guwahati** (2020–2022)
  - *Database Management Systems*: Supervised laboratory sessions on SQL query optimization, transaction processing, and database design
  - *Python Programming*: Conducted beginner to advanced programming workshops with focus on data structures and algorithm implementation
  - *Frontend Web Development*: Guided students through HTML, CSS, JavaScript, and modern framework fundamentals
  - *Hands-on IoT*: Supervised practical sessions on sensor integration, data acquisition, and IoT system prototyping

Teaching Interests

My teaching interests align closely with my research expertise and include:

- Edge/Cloud Computing Systems and Distributed Architectures
- Containerization Technologies and Runtime Environments
- Internet of Things (IoT) and Fog/Edge Computing
- WebAssembly and Portable Code Execution
- Performance Analysis and Optimization
- Operating Systems and Computer Architecture
- Programming Languages (Rust, C/C++, Python, Go)

Student Mentoring

- Supervised 4 undergraduate students in their final year projects on IoT security and edge computing
- Provided research guidance to junior PhD students on experimental methodology and reproducibility

Teaching Development

Incorporating active learning techniques and project-based assessments and creating inclusive and intuitive learning materials that accommodate diverse learning styles for different levels of students.