CSE 302LR: Introduction to Experiential Learning/Research (Section B) - Fall 2025

Lecture 1: Introduction & Course Logistics;

Build your resume as a researcher

8/26/2025

University at Buffalo
Department of Computer Science and Engineering
School of Engineering and Applied Sciences

Clemen 217, 3:30 pm - 4:50 pm. In-person attendance required.

Find more on course website:
https://cse.buffalo.edu/adblab/elrr/

What this course is about?

- Research experience and training
  - What is it like being a researcher? Is this the career path for me?

- You work with a faculty mentor in a research team
  - Learn new stuff (research skills)
    - Tools, programming languages, systems, proof techniques, etc.
    - How to read papers
    - How to form hypothesis, design experiments and analyze results
    - How to present
  - Practice in real research project

Responsibility and work ethics

- Research is not homework assignment
    - Keep motivated
    - Be proactive and communicate with your mentor and peers
    - Take risks but also be open-minded
    - Be responsive -- respond to emails/messages regularly

    - There is no guarantee that you'll be successful even if you're smart and you work hard!
        - However, we don't grade you based on outcome.
        - Progress is all that matters.

Contact hours and grading

- Required in-person lectures: every Tuesday, 3:30 pm- 4:50 pm @ Clemen 217
  - Skills training (tentatively: [The Missing Semester of Your CS Education](#))

- Weekly project meeting with your team
  - Contact your project mentor
  - Usually 1 hour
  - Not necessarily during scheduled lecture times

- Assignment will be announced by this Thursday (8/28)
  - Please check your emails
  - You may be asked to join additional meetings within the week

- Grading
  - See [syllabus](#) on course website

Available Projects of Fall 2025

- 5G core network (with [Prof. Yaxiong Xie](#))
  - measurement, network protocols
  - preferred skills: Linux, C programming

- Bioinformatics (with [Prof. Wenyao Xu](#))
  - wireless, machine learning, etc.

- Approximate Query Processing in PostgreSQL (with [Prof. Zhuoyue Zhao](#))
  - database systems, (SQL) query processing and optimization
  - preferred skills: C and C++ programming, data structures and algorithms

Today's agenda

- Introduce yourself

- What to include in a resume/CV of a researcher

- Next week

  - Create a professional resume using LaTeX (pronounced as "Lay - Tech" or "Lah - Tech")

  - Required reading by next Tuesday lecture

    - [The Not So Short Introduction to LaTeX 2ε](#) (Chapters 1 - 3)

    - We will assume you are familiar with the basics