advanced topics in interaction and multimedia

FEUP - winter semester

alexandre valle

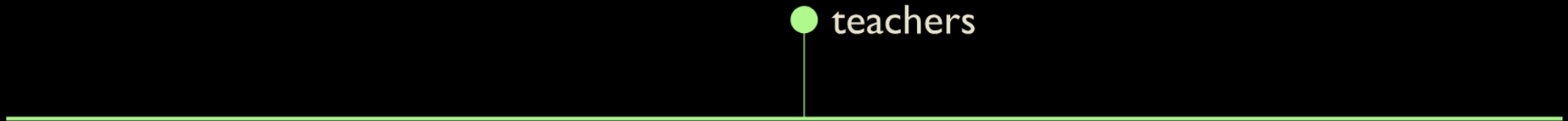
alexandre.valle@fe.up.pt

rui rodrigues

rui.rodrigues@fe.up.pt

daniel mendes

danielmendes@fe.up.pt



alexandre valle

Teacher at the FEUP since 2006 (researcher at INESCTEC since 1997)

Main areas of interest: Inform. Systems, InfoVis and Comp.Gra.
Participated in 24+ R&D&I projects and solutions for health, transport and logistics, electrical power, communications, urban management.

Author or co-author of 30+ scientific publications

Founder SIAGHOS (observational clinical studies in oncology) and co-founder MITMYNID (new paradigms for process management in the transport and logistics).

- teacher presentation

rui rodrigues

Graduated in Systems and Informatics Engineering at University of Minho
PhD in the area of 3D reconstruction from images both at Philips Research (Eindhoven) and University of Minho.

Worked in the industry in interactive systems and games until 2009.
Joined DEI @ FEUP in 2009 and INESC TEC / CSIG in 2011

Teaches and researches in the areas of Computer Graphics, Interaction and Game design.
One of the responsibles for the GIG group at DEI/FEUP and its labs.

Was director of the Multimedia Masters of U.Porto, and is the current director of M.EIC.

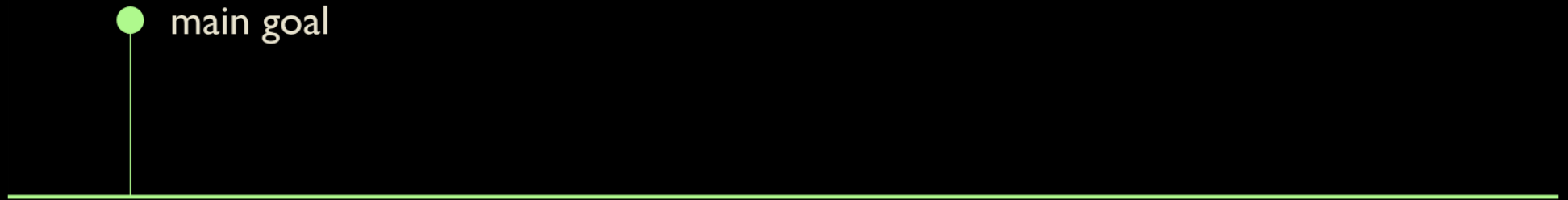
- teacher presentation

daniel mendes

Professor at FEUP and researcher at INESC TEC (since 2020).
Main interest areas: HCI, 3DUI, VR/AR, Multimodal Interfaces and Touch/Gesture-based Interactions.
Involved in several national research projects funded by the Portuguese Foundation for Science and Technology (FCT).
Co-authored several dozen publications in scientific journals, conferences, and meetings, such as ACM CHI, IEEE VR (and former 3DUI), ACM VRST.
Was on organizing committee Eurographics 2016, ACM ISS 2020, and ICGI 2021.

- teacher presentation

build knowledge in research and development processes in areas regarding advanced Interaction and multimedia



information visualization
multimodal interfaces
3D interfaces
evaluation of human-computer interfaces

- scientific areas

critically analyze advanced UI

conceptualize different approaches for HCI challenges

evaluate and select the best approach from a set of alternatives

- student expected achievements

talks

key areas' presentation and discussion

individual paper presentations

choose a paper to study and present

group project

propose, evaluate, and present an advanced UI

- program

3 hours / week

1st part - presentations (teachers, speakers, students)

2nd part - group work

paper study (30%)

individual

research project (70%)

groups of 2 students

- class structure
- course evaluation

1st - to select a scientific paper

from the latest ACM CHI conference:

CHI 2023 Papers

2nd - to study the paper

identify the motivation, main contribution, pros and cons of the approach, limitations, and main results

- paper study (30%)

3rd - to submit

mandatory submission of paper presentation and short report - October 2nd

What to focus on the report:

- Why was the work done
- What was done
- How was it validated
- What was concluded
- What I would do differently

- paper study (30%)

4th - to present to the class

mandatory 2 Min Madness flash presentation - October 2nd

What to focus on the presentation:

- Why was the work done
- What was done
- What was concluded

- paper study (30%)

groups

2 students

topic

to be chosen from a set of challenges provided by teachers

within the areas of InfoVis, Multimodal UI, and 3DUI

- research project (70%)

steps

1. conceive original approach
2. prototype
3. evaluate against other group with real users
4. statistical analysis of the results

- research project (70%)

Some devices that can be used for the projects
(pending teacher approval)

VR Headsets

Large MT Surfaces

MS Hololens

Leap Motion

be creative!

3 key presentations

project approach - October 16

intermediate presentation - November 13

final presentation - January, 2024 (TBD)

max 10 minutes each + discussion

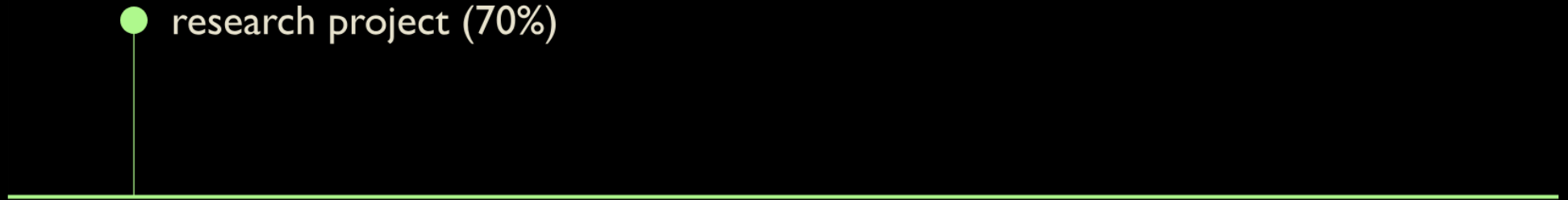
- research project (70%)

research project evaluation

final presentation

report (paper format)

peer evaluation



Questions?

from the latest ACM CHI conference:

CHI 2023 Papers

select one paper and submit choice in moodle

- for next class