Group based supervision
An engineering approach

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DTU Informatics
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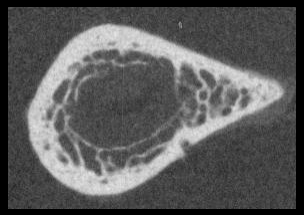
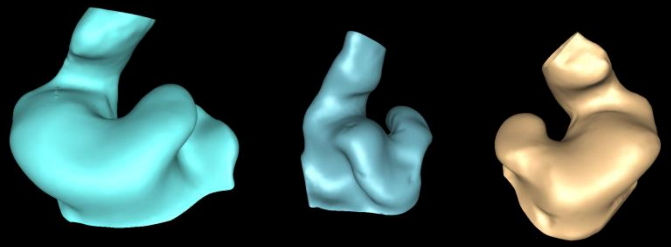
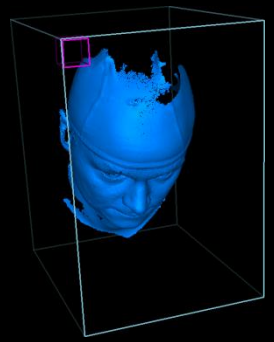
Who am I





- Master of Science from DTU
- R/D at Pronosco
- Oticon A/S: Industrial PhD student
  - Visit to INRIA Sophia-Antipolis
- Oticon A/S: R/D
- DTU Informatics: Associate Professor



Student supervision

- A long tradition in the image analysis group
- Currently responsible
  - Rasmus R. Paulsen
  - Line Clemmensen
  - Anders Dahl

Key Ideas

- Ownership – students should feel that it is their project
- Write Early – do not write the report the last week
- Management – student is the project leader
- Plans – project plans are required
- Group meetings – weekly meetings

We want


PC
Stereo
Check signal cable.
SAMSUNG

It all starts with a kick-off meeting….

Welcome to the kick-off meeting!

- You want to start coding yesterday!
  - Hold your horses!
- We (who employ you) want a plan!
  - And a description

But first – what is the goal?

- Example reports
- Different styles – get the best out of the student backgrounds
  - MedTech vs. MatTech

You are the project leader

- We employ you to finish a project
  - Everyday life for an engineer
  - Everyday life for a PhD student
- You are the expert
  - We are your guides
- The most important resource: Time
  - Your time
  - Our time

Weekly meeting

- Every Friday at 13-14.30 in 321/206
- Be prepared
  - What do you want to tell us?
  - What can we do to help you?
- Weekly report
  - Uploaded latest Thursday evening on our CampusNet group

Weekly report

- What has been done
  - Written in thesis-ready language
- Status according to study plan
- Plans for the coming week
  - Based on supervisor/fellow student input
- Use: Plenty of images, graphs, drawings, references
  - Get your Bibtex/Refman/Endnote running from day one!

The plan

- No coding/building/welding/tasting before a plan is made
- Your approximate timing of the activities involved
- Risk analysis: Dangers of activities being late
  - Used to formulate alternative plans already from the start
  - Doctors providing data is an inherent high-risk activity

Week	Activity	Risk
1-3	Finish Literature study - Choose initial algorithms	1
3	Begin implementing algorithms	1
5	System with first steps implemented	3
7	Poster for visiondays	3
8	Data gathering	3
8-?	Prepare calibration object and orthophoto method	1
?	Bring calibration object to the airport	2
?	Test and improve system on various scenes	3
	Report writing	1

1 : no risk

5 : Very high risk that activity will be delayed

The first weekly report

- The Plan
- Your understanding of the project
  - Background
  - Data
  - System setup
  - Goals
  - Potential methods
  - Prior work
- Serve as a contract between you, the supervisors and external partners
  - See it as a future protection! No cheap programmers here.

Weekly meeting

- Based on your weekly report
  - Quality of feedback equals quality of report
  - Supervisor/we will try hard to read and comment your reports
- You will encounter plenty of ideas and suggestion
  - Write them down
  - Prioritise them together with us/your supervisor
  - Try to tackle tasks in serial
- Limit the use of your supervisor for tool-like questions
  - Latex formatting, Matlab coding, C++ structure
  - Ask the other students

The report

- Based on your weekly report
  - Formulate weekly reports in “thesis language”
- Use IMM/DTU templates
- Write the introduction early
  - What do we have and what do we want to do?

- The conclusion should answer the introduction
  - Did we achieve our goals – or to what degree did we achieve it?

Experiment over

Concerns

- Weak/strong students
- Students stealing other students ideas
- Process vs. academic supervision
- Learning objectives?
- Not easy to adapt to PhD supervision

How do I start?

- Gather 3-5 projects with somewhat similar topics
- Set a fixed weekday/time and book a meeting room
- Create a CampusNet group
- Organise a kick-off meeting
  - Use the available material as inspiration
- Push the students to write weekly reports
- Read and comment the weekly reports