

## Department of Computer Science Doctoral administration

ETH Zurich CAB H 37.1 Universitätstrasse 6 CH-8092 Zurich

doctorate@inf.ethz.ch www.inf.ethz.ch

### **Guidelines for Research Plans**

The ETH regulations require that all doctoral students submit a research plan within the first 12 months of their study.

For doctoral students in their first year, a reminder will be sent out to them after 11 months if they have not submitted a research plan by that time.

#### 1. General Structure of the Research Plan

Writing a research plan should help you structure and plan your work and also the thesis that you will write. It will also help you gain valuable experience in writing research proposals.

The following guidelines are intended to help you structure the research plan and make sure that you include the necessary information. These should be treated as general, minimal requirements.

#### 1. Basic Information

| Name Doctoral Student |  |
|-----------------------|--|
| Student number        |  |
| Name Supervisor       |  |
| Name Second Advisor   |  |
|                       |  |
| Start of Doctorate    |  |
| Title Research Plan   |  |



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Signatures of the doctoral student and the supervisor should be included at the end of the plan. If there have been any changes to your supervision during your doctoral studies, a statement about this should be included in the research plan. If it is known at the time of writing the research plan that the supervisor will leave ETH Zurich during the expected duration of the thesis, then the research plan should also indicate who will take over the supervision, and they should also approve and sign the research plan.

The signed research plan is submitted to the **D-INFK** doctoral administration.

### 2. Summary (max ½ page)

Your plan should contain a short summary to identify the area of your research, the main goals, and the expected contributions to your field of research.

#### **3. Introduction** (ca 1 page)

A brief introduction to the field of your research and the issues to be addressed should be included. It is important to make already clear what the general methods and outcomes of your research will be. For example, will you be designing an algorithm and proving it correct or developing a framework and designing experiments to evaluate it?

#### 4. State-of-the-Art (ca 2-3 pages)

This section aims to describe the setting of your research in terms of previous and related work. It should explain the significance of your research and identify research challenges. In a summary document such as this, you cannot go into details of all related work, so it is important to focus on the main concepts and to reference key papers. It should convince the reader that your research is worth doing and also that you have the necessary background knowledge to carry out that research.

## **5. Goals of the Thesis** (ca 2-3 pages)

This section should include a paragraph or two describing the main goals of the thesis and then provide details of the following:

- the research questions to be addressed
- the methods to be used
- the expected contributions



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### 6. Detailed Work plan (ca 1 page)

Your work plan should be presented in terms of work packages. Each work package should represent a major piece of work. The number and nature of the work packages will depend on the topic of research, and this is where the student should be guided by their supervisor. As a general guideline, a work package should describe a min of 3 and a max of 12 months of work. Each work package description should define the task and the expected outcomes.

## 7. Progress to date (ca ½ page)

With reference to the work plan, you should describe the progress made to date with details of any results, including publications accepted or submitted.

#### 8. Schedule (ca ½ page)

A schedule showing clearly when you started the doctorate, the work packages completed or underway, and the envisaged start and end times of the future work packages should be included. This should include estimates of when the thesis will be completed, including the writing of the thesis report.

#### 9. References (ca 1 page)

A list of papers referenced in the description of the state-of-the-art should be included. Since the research plan is intended to be a summary document, it is not necessary to include large lists of all papers that you have read but rather to reference key papers in your area of research.

#### 2. Additional Information

The following additional information must be included in research plans:

- Expected publications
- Teaching duties
- Any other duties

This section is intended to list any special conditions stipulated by your supervisor, such as a publication in a specific conference or journal or special teaching and administration duties. If there are none, you can simply write "no special requirements".



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## 3. Study Plan

Students may include a proposed study plan for the required 12 credits – see the department guidelines for details of how these credits can be earned.

Prof. Otmar Hilliges Chair of the Doctoral Committee Department of Computer Science

1 January 2022