



# PhD Student Position in Human Aspects of Software Engineering at the University of Zurich

Open Position: **Research Associate (PhD Student)**  
Topics: **Developer task context sensing**  
Starting date: **upon common agreement (preferably in H1, 2023)**  
Supervisor: **Prof. Dr. Thomas Fritz**

The **Human Aspects of Software Engineering Lab (HASEL)**, led by **Prof. Dr. Thomas Fritz** at the University of Zurich, Switzerland, invites applications for one fully funded PhD student position. For your PhD, you will work in the HASEL group on high-impact research at the intersection of empirical software engineering and human computer interaction.

Our **group's research focuses** on the human aspect of software engineering to boost developer productivity and well-being. We empirically study software developers, their needs, perceptions, and how they operate on a daily basis. Based on the gathered insights, we develop approaches that use personal and biometric data to foster productive behavior at work and evaluate their benefit for professionals. In particular, our group's research topics include developer and team productivity, (biometric) sensing of cognitive and emotional states of developers, empirical studies on developers' information needs, and approaches to determine task switches and reduce information overload. Learn more about our group's research at: [Research – Hasel](#)

The **fully funded PhD student position** is in the area of supporting developers' workflows and flow at work:

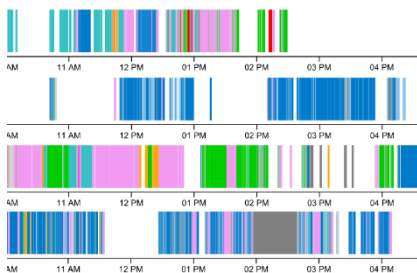


Figure 1: Four work days of a developer in one of our studies, illustrating the high work fragmentation and number of switches between different developer activities.

**Supporting Developers' Workflows.** For their development work, developers constantly switch between different applications, artifacts and tasks, navigating, reading and editing information. These switches can incur a high cost in terms of time, effort and quality of work, and require developers to continuously relocate and reestablish relevant context. The objective of this project is to examine and develop approaches to smoothen developer's switches between tasks and applications by automatically capturing and providing the context relevant across the switches. By easing the task and application switches, we will reduce the mental effort required by developers, speed up their workflows and help them to focus on the essential parts of their tasks. Learn more about some of our prior work in this area: [Supporting Developers' Workflows – Hasel](#)

We collaborate closely with more than 20 industrial partners to carry out and evaluate our research projects, including Microsoft, Logitech, ABB, Salesforce, and Adesso, as well as with university researchers around the globe, including Canada, the USA, and New Zealand. We publish our research in the top international journals and conferences in the fields of Software Engineering and Human Computer Interaction.

Our research group is part of the UZH Software Lab, a consortium of three professors (Hall Gall, Alberto Bacchelli and Thomas Fritz) and currently has 4 postdocs and 9 PhD students. We have a track record of substantial impact at international prime venues and are well funded.



**Your responsibilities:**

- Develop and manage research projects with a focus on developer, and more generally knowledge worker, productivity and well-being;
- Conduct and complete highly innovative research, in collaboration with and supported by the group and other researchers;
- Develop new tools and approaches that are studied in lab and field studies;
- Analyze the results, publish and present them at international conferences and journals;
- Support teaching activities of the HASEL group and mentor Bachelor and Master students in topics of your areas of competence.

**We offer:**

- a team of young and highly motivated colleagues who are passionate about researching and improving individuals' and teams' productivity and well-being;
- strong support for your professional/career development;
- a very competitive salary;
- generous support for professional travel and research needs;
- an attractive work environment both within the research group and beyond: the University of Zurich is one of Switzerland's leading universities in the middle of a vibrant, cosmopolitan city that regularly ranks as one of the cities with the highest quality of life in the world.

**You have:**

- a Master's degree (for a PhD position) in Computer Science or a related field. Exceptional candidates from psychology and the humanities are also strongly encouraged to apply;
- an interest in understanding and improving software developers' and other knowledge workers' work life;
- strong analytical skills and experience in developing software (prior knowledge in data science, qualitative research, or empirical software engineering is helpful but not required);
- excellent communication skills in English (German speaking skills are welcome but not necessary). English is the working and teaching language in our department. Also, in your day-to-day life in Switzerland and especially in Zurich, you will get by well in English.
- Ability to move to Zurich, Switzerland.

**How to apply:** If you fit this profile, like challenges and to grow personally and scientifically, and are passionate about research, then we would love to hear from you. To submit your application for a PhD student position, fill out the [online application form](#) and upload the required documents (including your current CV, university degrees, statements of interests and contact details).

Please submit a personalized **motivation letter**, in which you describe why the HASEL group is interesting to you in particular, and why you think that you'll be a good fit. Ideally, your motivation letter is considering the rough project outline and our previous research (see above) and compares it to your previous (industrial and research) experience.

We consider applications until all positions are filled. The starting date is negotiable. Further information on our group, including the other group members, previous and current research is available online at: [www.hasel.dev](http://www.hasel.dev). If you have further questions, please contact us at [fritz@ifi.uzh.ch](mailto:fritz@ifi.uzh.ch) and [ameyer@ifi.uzh.ch](mailto:ameyer@ifi.uzh.ch) with the subject "[Application] PhD Researcher Position at HASEL".