Offer #2025-08747

PhD Position F/M tVISt: Data Visualization Beyond Planar Displays

Contract type : Fixed-term contract

Level of qualifications required : Graduate degree or equivalent

Fonction : PhD Position

About the research centre or Inria department

The Inria Saclay-Île-de-France Research Centre was established in 2008. It has developed as part of the Saclay site in partnership with **Paris-Saclay University** and with the **Institut Polytechnique de Paris** .

The centre has 40 **project teams** , 27 of which operate jointly with Paris-Saclay University and the Institut Polytechnique de Paris; Its activities occupy over 600 people, scientists and research and innovation support staff, including 44 different nationalities.

Context

Location & Duration

- The PhD student will enroll at the Universite-Paris Saclay (12th worldwide in the Shanghai ranking in 2024 and the top ranking French university) in the computer science graduate school . The student will be hosted in the Aviz or Ilda team at Inria, which is the French national research institute dedicated to digital science and technology.
- Location: Bât 660, Digiteo Moulon, Université Paris-Saclay, 91190, Gif-Sur-Yvette
- The PhD funding is available for a duration of three years.

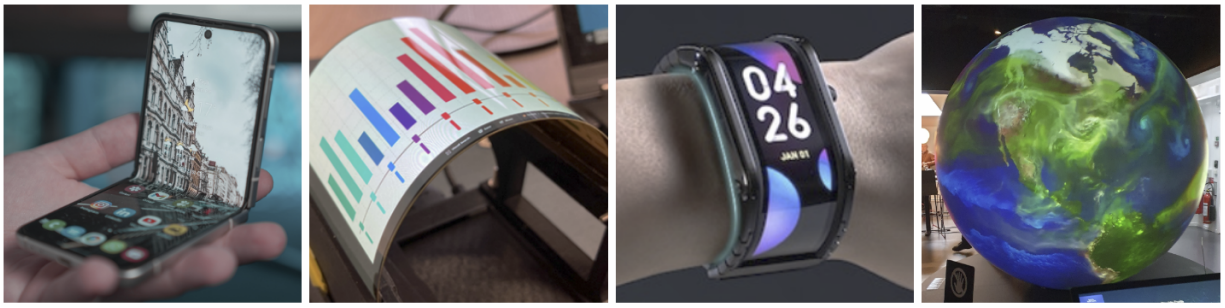
Benefits package

- Subsidized meals
- Partial reimbursement of public transport costs
- Vacation: around 40 days a year + possibility of exceptional leave (sick children,
- moving home, etc.)
- Possibility of teleworking and flexible organization of working hours
- Professional equipment available (videoconferencing, loan of computer
- equipment, etc.)
- Social, cultural and sports events and activities
- Access to vocational training
- Social security coverage

Remuneration

- Gross salary : ~2.200 euros/month

Assignment



The world is flat and rectangular when it comes to the types of physical screens that we use for representing data and making decisions. Display technology, however, is already evolving quickly: curved, bendable, and highly flexible displays, spherical displays, cubed displays, and even drone-based displays have emerged and are commercially available. These novel types of displays offer new ways to represent and explore data embedded in everyday environments, to communicate it, and share it. For a possible future in which non-planar displays will be ubiquitous, however, there are open questions about what visualizations should look like on these displays, how we would interact with them, and how people would engage with them. Non-planar displays, therefore, not only pose perceptual challenges for data visualization, but it is also yet largely unexplored which visualization types work on them and how to create effective and appealing interactive data visualization experiences. As such, the potential and the challenges of these displays for visual data representation remain unexplored. There are two PhD projects part of a larger

international funded project that aims to escape from the “display flatland” that characterizes today’s research in visualization. It will establish foundations for how to engage with a future in which physical displays take on several different form factors and become truly embedded in our environments.

As part of this research there are two PhD topics to choose from (we will consider dual-career couples).
See the full proposal for more information: https://tinyurl.com/2p8yjjz5

Main activities

Both PhD topics will lead to high-quality scientific publications in the domain of visualization and/or human-computer interaction (IEEE VIS, IEEE TVCG, ACM CHI, etc) and presented in relevant conferences. In addition, the students will be involved in dissemination activities around the constructed prototypes in public forums such as open research days, workshops, etc.

For detailed activities as part of each PhD proposal, please go to the following website: https://tinyurl.com/2p8yjjz5

Skills

Requirements

- We are looking for someone interested in this topic, motivated, and with a background in visualization, human-computer interaction, or display hardware prototyping.

Any of the following experiences are a plus:

- Data analysis experience (Python, R)
- Experience working with display hardware
- Experience with empirical user studies
- Experience programming data visualizations
- Experience in design

Benefits package

- Subsidized meals
- Partial reimbursement of public transport costs

- Leave: 7 weeks of annual leave + 10 extra days off due to RTT (statutory reduction in working hours) + possibility of exceptional leave (sick children, moving home, etc.)
- Possibility of teleworking (after 6 months of employment) and flexible organization of working hours
- Professional equipment available (videoconferencing, loan of computer equipment, etc.)
- Social, cultural and sports events and activities
- Access to vocational training
- Social security coverage

Remuneration

Monthly gross salary : 2.200 euros/month

General Information

- **Theme/Domain :** Interaction and visualization
  Information system (BAP E)
- **Town/city :** Gif Sur Yvette
- **Inria Center :** Centre Inria de Saclay
- **Starting date :** 2025-10-01
- **Duration of contract :** 3 years
- **Deadline to apply :** 2025-06-30

Contacts

- **Inria Team :** AVIZ
- **PhD Supervisor :**
  Isenberg Petra / Petra.Isenberg@inria.fr

About Inria

Inria is the French national research institute dedicated to digital science and technology. It employs 2,600 people. Its 200 agile project teams, generally run jointly with academic partners, include more than 3,500 scientists and engineers working to meet the challenges of digital technology, often at the interface with other disciplines. The Institute also employs numerous talents in over forty different professions. 900 research support staff contribute to the preparation and development of scientific and entrepreneurial projects that have a worldwide impact.

The keys to success

The student should have a keen interest in research, reading the scientific literature, engaging in research discussions, but also writing and communicating their findings.

Both PhD topics will lead to high-quality scientific publications in the domain of visualization and/or human-computer interaction (IEEE VIS, IEEE TVCG, ACM CHI, etc) and presented in relevant conferences. In addition, the students will be involved in dissemination activities around the constructed prototypes in public forums such as open research days, workshops, etc.

Warning : you must enter your e-mail address in order to save your application to Inria. Applications must be submitted online on the Inria website. Processing of applications sent from other channels is not guaranteed.

Instruction to apply

Defence Security :
This position is likely to be situated in a restricted area (ZRR), as defined in Decree No. 2011-1425 relating to the protection of national scientific and technical potential (PPST).Authorisation to enter an area is granted by the director of the unit, following a favourable Ministerial decision, as defined in the decree of 3 July 2012 relating to the PPST. An unfavourable Ministerial decision in respect of a position situated in a ZRR would result in the cancellation of the appointment.

Recruitment Policy :
As part of its diversity policy, all Inria positions are accessible to people with disabilities.