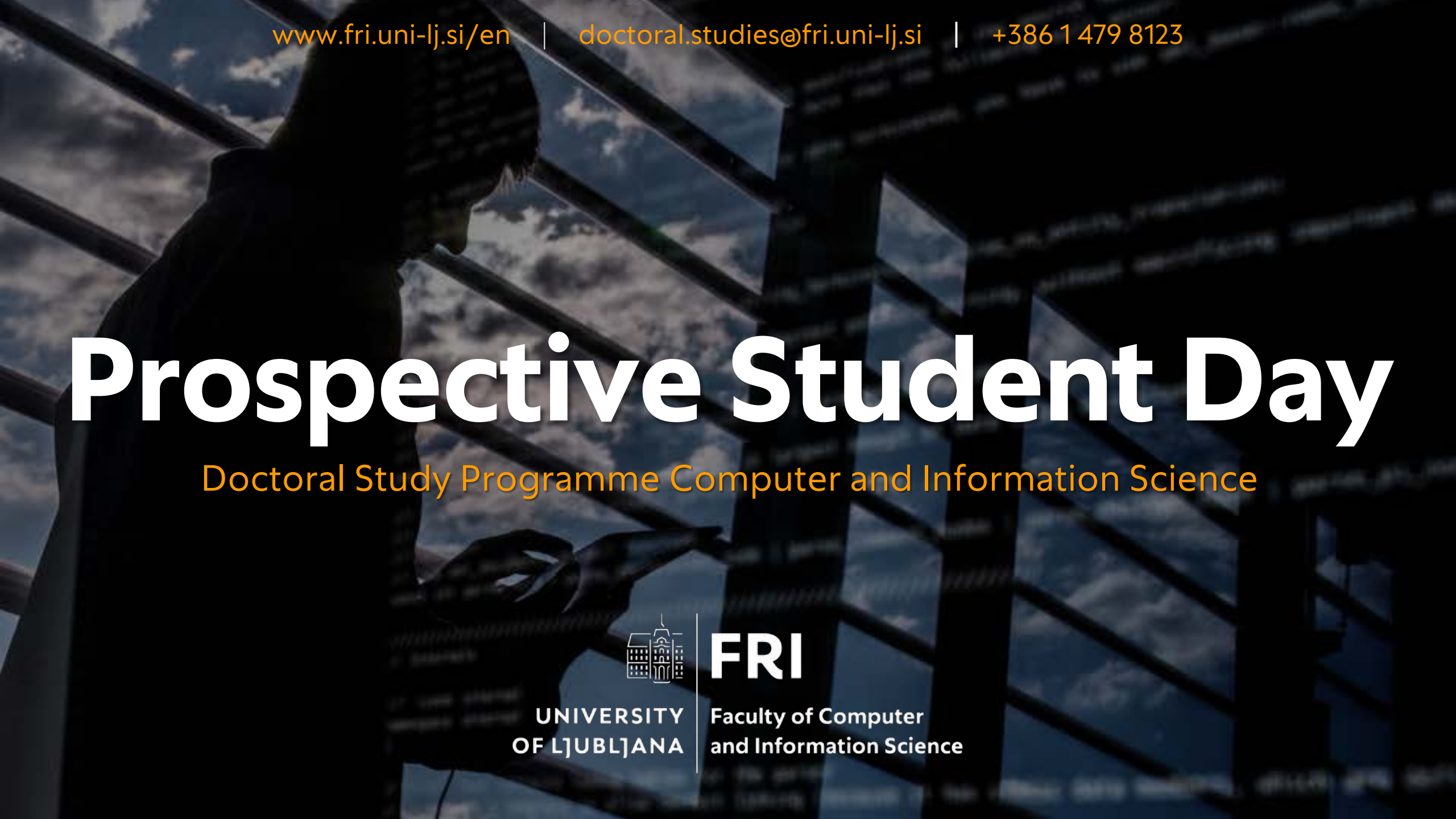
www.fri.uni-lj.si/en | doctoral.studies@fri.uni-lj.si | +386 1 479 8123



Prospective Student Day

Doctoral Study Programme Computer and Information Science

UNIVERSITY OF LJUBLJANA

FRI

Faculty of Computer and Information Science

UNIVERSITY OF LJUBLJANA | FRI Faculty of Computer and Information Science

What doctoral students like the most?

Doctoral study = Research

UNIVERSITY OF LJUBLJANA | FRI Faculty of Computer and Information Science

19
Laboratories

fri.uni-lj.si/en/research/laboratories

60
Mentors

fri.uni-lj.si/en/mentors

Research

UNIVERSITY OF L]UBL]ANA | FRI Faculty of Computer and Information Science

Integrated Systems

Biometry

Cyber Security

Language technologies

Research

UNIVERSITY OF L]UBL]ANA | FRI Faculty of Computer and Information Science

Blockchain and Cloud Computing

Data mining

Artificial Inteligence

Supercomputing

Computer Vision

Modern Facilities

UNIVERZA V LJUBLJANI | FRI Fakulteta za računalništvo in informatiko

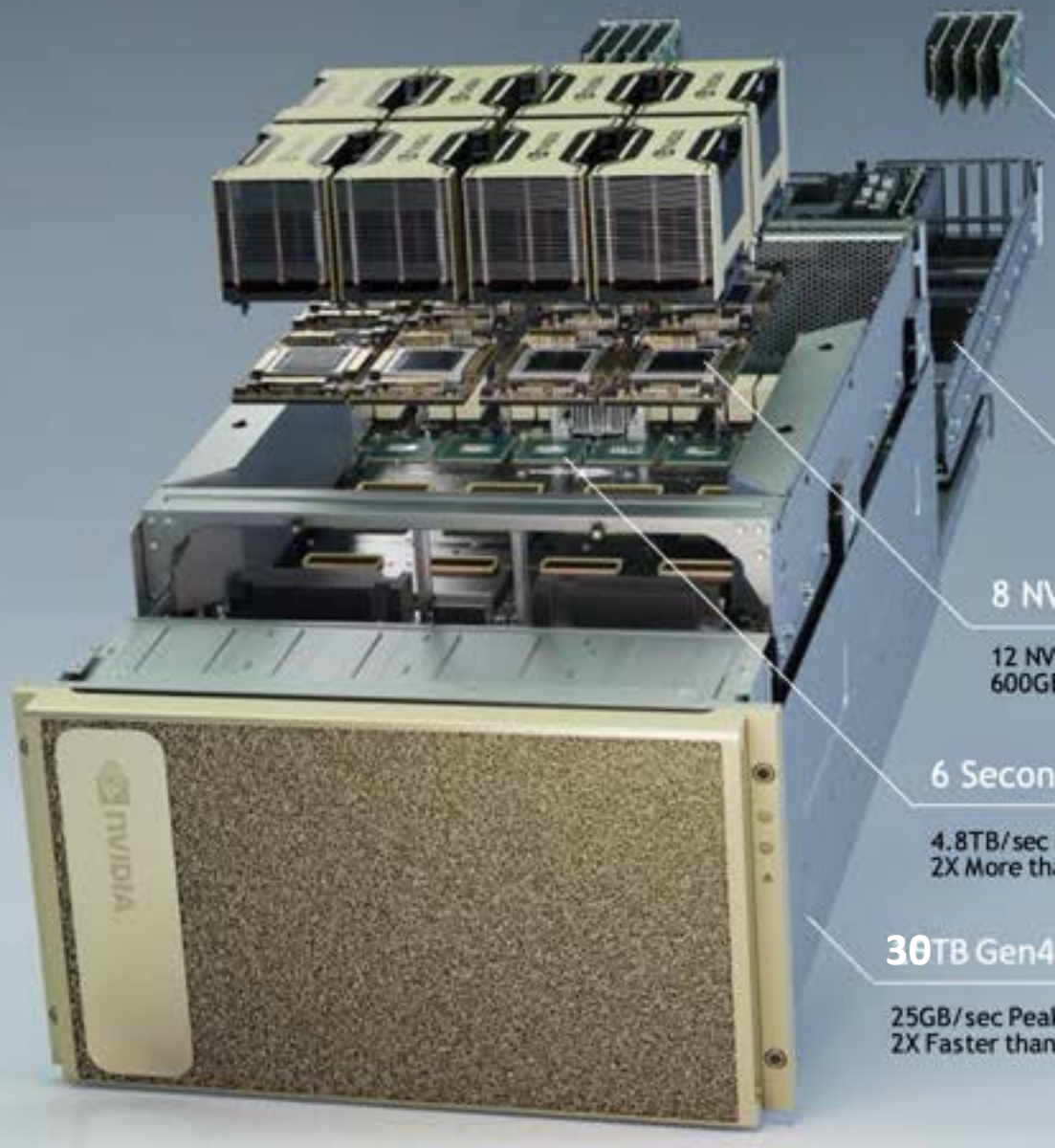
12 Computer Classrooms

19 Reseach Laboratories

Access to Supercomputing technologies

Computing infrastructure

UNIVERZA V LJUBLJANI | FRI Fakulteta za računalništvo in informatiko



9x Mellanox ConnectX-6 VPI HDR InfiniBand/200Gb Ethernet

450GB/sec Bi-directional Bandwidth

Dual 64-core AMD CPUs and 2TB System Memory

3.2X More Cores to Power the Most Intensive AI Jobs

8 NVIDIA A100 GPUs with 320GB TOTAL GPU Memory

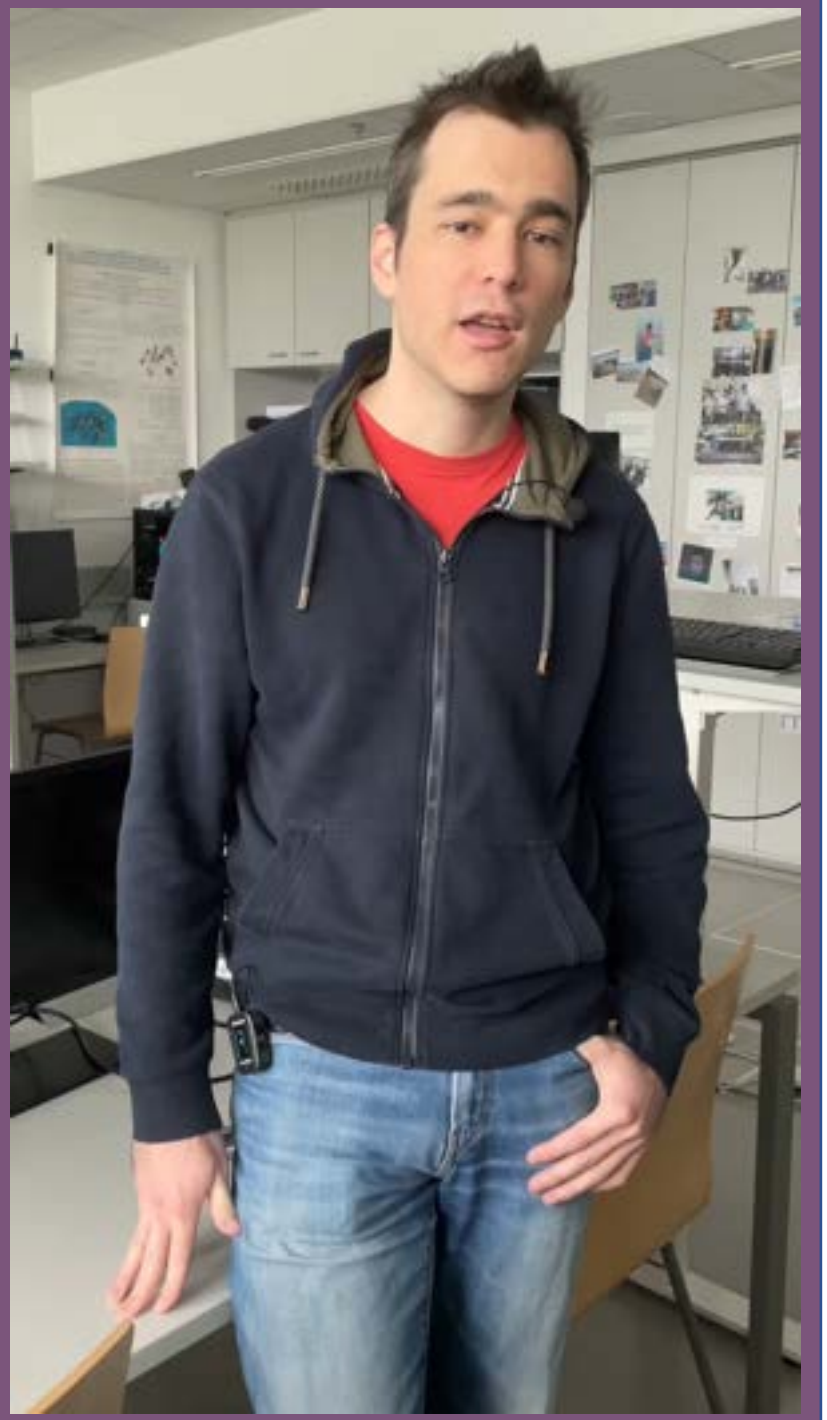
12 NVLinks/GPU
600GB/sec GPU-to-GPU Bi-directional Bandwidth

6 Second Generation NVSwitches

4.8TB/sec Bi-directional Bandwidth
2X More than Previous Generation NVSwitch

30TB Gen4 NVME SSDs

25GB/sec Peak Bandwidth
2X Faster than Gen3 NVME SSDs



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What is your research topic?

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What is your research topic?

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Meet Doctoral Student

Yannick Kuhar

UNIVERSITY OF LJUBLJANA | FRI Faculty of Computer and Information Science

Study Programme

1st Year

2nd Year

3rd Year

4th Year

Elective Courses

UNIVERSITY OF LJUBLJANA | FRI Faculty of Computer and Information Science

- Lecture-type courses (biennially)
- Individual-research-type courses

- Incremental Learning from Data Streams
- Tensor Networks for Machine Learning
- Advanced Topics in Ubiquitous Sensing and Learning
- Selected Topics in Software Engineering
- Recent Advances in Combinatorial Solvers
- Heterogeneous Computing Platforms
- Selected Topics in Analysis of Sound Signals
- Selected Topics from Computer Graphics and Visualization
- Deep Learning for Computer Vision
- In-Depth Computer Vision Research
- Advanced Image-based Biometrics
- Advanced Algorithms for Search and Planning
- Machine Learning for Language and Graphs
- INFOSEC of Socio-Technical Systems

Doctoral theses defences

Selection 2022-24

UNIVERSITY OF LJUBLJANA | FRI Faculty of Computer and Information Science

- Explainable artificial intelligence
- Information security
- Secure software development
- Deep reinforcement learning for target-driven robot navigation
- Face deidentification with generative neural networks
- Obstacle detection for autonomous surface vehicles
- Detecting surface anomalies with deep learning
- Cross-lingual word embeddings

https://repozitorij.uni-lj.si/Statistika.php

Doctoral Students' Careers

Alumni 2021-2024

UNIVERSITY OF LJUBLJANA | FRI Faculty of Computer and Information Science

Academia

Teaching Assistant
Assistant Professor
Researcher

Industry

Data Scientist
Lead Data Analyst
Data Science Team Lead
Software Architect
Tech Lead
Senior DevOps Engineer
Cloud Solution Architect
Senior DevOps Engineer
Product Steward Lead

Databox
Genialis
Viaduct
Outbrain
Aleph Group Inc.
Novartis
Playrix
Philips

Most Successful Doctoral Students

UNIVERSITY OF LJUBLJANA | FRI Faculty of Computer and Information Science

Asst. Prof. dr. Marinka Žitnik,
2015,
Harvard University

dr. Sanja Fidler,
2010,
Vice-President of AI Research, NVIDIA

dr. Jure Žbontar,
2016,
Research Engineer, OpenAI

dr. Martin Možina,
2009,
Lead Data Scientist, Mercator d.d.

dr. Miha Štajdohar,
2012,
CTO & Co-founder, Genialis

dr. Martin Jakomin,
2019,
Data Science Team Lead Outbrain

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Meet Doctoral Student

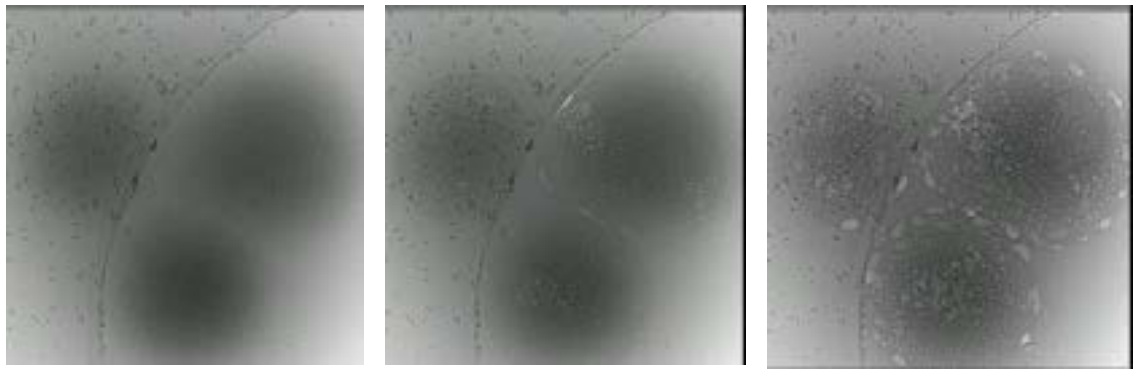
Eva Boneš

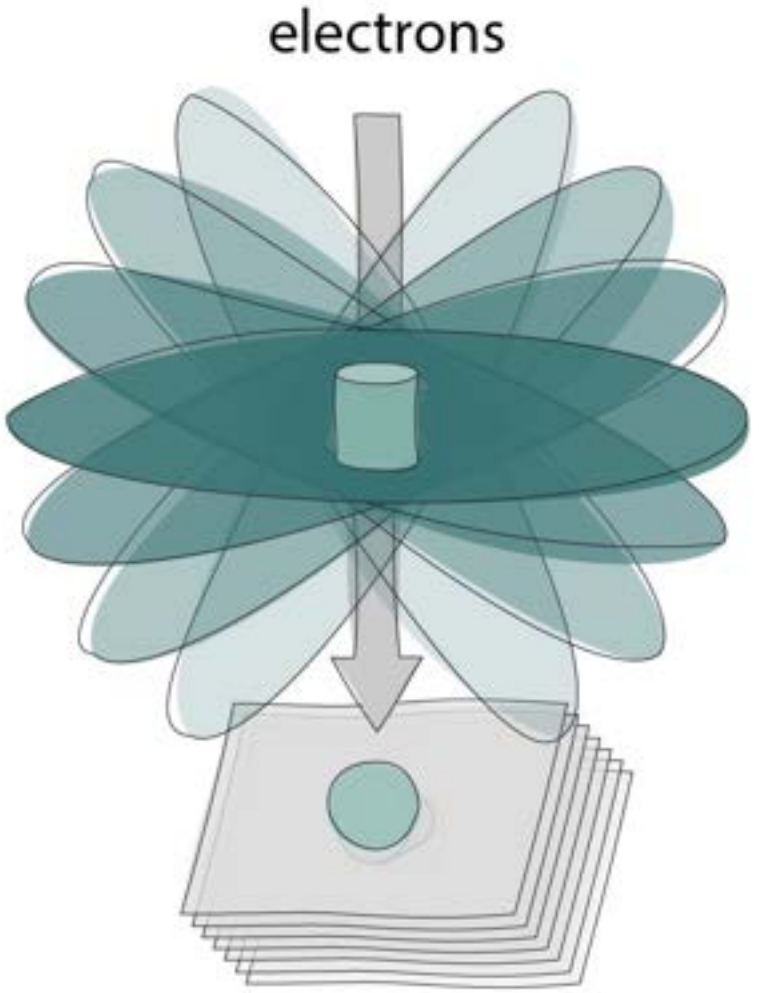
Doctoral Study Research

Eva Boneš

UNIVERSITY OF LJUBLJANA | FRI Faculty of Computer and Information Science

4D Reconstruction for High-Dose Cryo-Electron Tomography Data





KAUST

UNIVERSITY OF LJUBLJANA | FRI Faculty of Computer and Information Science

Computer graphics and visualization

Biological processes and data on micro/nano level

Asst. prof. dr. Ciril Bohak: ciril.bohak@fri.uni-lj.si

King Abdullah University of Science and Technology | VCC VISUAL COMPUTING CENTER

- Reconstruction of electron microscopy data:
  e.g. cryo-ET.
- Segmentation and analysis of microscopy data:
  e.g. structure, background segmentation.
- (Procedural) Modeling of biological systems on a molecular level:
  e.g. viruses, bacteria, cell organelles.
- Simulating parts of electron microscope using
  deep learning models: e.g. Simulating noise, electron beam, sensors.
- Deep learning methods in computer graphics:
  e.g. end-to-end differentiable rendering of volumetric data.

https://cemse.kaust.edu.sa/vcc

International Collaborations

UNIVERSITY OF LJUBLJANA | FRI Faculty of Computer and Information Science

Collaborations with world-renowned institutions:

- **Joint Research Centre of European Commission** (Italy),
- **The European Organization for Nuclear Research** – CERN (Switzerland);
- **Kyungpook National University** (South Korea),
- **University College London** (UK),
- **Baylor College of Medicine** (USA),
- **University of Birmingham** (UK);
- **Czech Technical University in Prague** (Czech republic);
- **Alpe-Adria University Klagenfurt** (Austria);
- **KAUST – King Abdullah University of Science and Technology** (Saudi Arabia);

200 +

Collaborating institutions

Internal fund for research and study visits abroad!

UNIVERSITY OF LJUBLJANA | FRI Faculty of Computer and Information Science

Student Life in Ljubljana

- Peaceful and safe city
- Low living costs:
  - 400–600€/month
  - Subsidized lunch, transportation
  - Dorms for exchange students
- Tech events for students

About Slovenia

Slovenia is one of the greenest European countries. Mediterranean Coast, snowy mountain tops of Julian Alps or thermal spa resorts in the Eastern part, famous for its wines, are all just an hour's drive from Ljubljana, the lively and picturesque capital of Slovenia.

Study in Ljubljana, discover Slovenia

How to Apply for the Doctoral Programme?

UNIVERSITY OF LJUBLJANA | FRI Faculty of Computer and Information Science

Apply Online

Apply at eVŠ Portal
portal.evs.gov.si/prijava

Master or pre-bologna equivalent study programme

Application Deadline

1 June 2024

Enrolment in September 2024

Application Enclosures

- a well-structured CV
- a certified copy of your bachelor or master's degree
- a GPA certificate of exams and tutorials
- a motivation letter
- 2 recommendation letters
- mentors's acceptance statement
- short conceptual design of the research work

Tuition Fees

4200 € for 1st and 2nd year

3000 € for 3rd and 4th year

Contact

Mrs. Zdenka Velikonja

E: zdenka.velikonja@fri.uni-lj.si
T: +386 1 479 8123

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Assistance to International Students by International Office

Assistance in applying for:

- study programme online via eVŠ platform
- visa, residence permit
- JRC call

Advising on:

- documentation for recognition of education
- finding an apartment in Ljubljana
- basic information about living in Slovenia

Contact Information

Ms. Vesna Gračner
E: international.office@fri.uni-lj.si
T: +386 1 479 8249

Open positions for Doctoral Students

UNIVERSITY OF LJUBLJANA | FRI Faculty of Computer and Information Science

https://fri.uni-lj.si/en/career-faculty

- Teaching assistants
- Junior researcher positions
- Researcher positions

Junior Researcher positions: 5

Mladi raziskovalci (MR)

UNIVERSITY OF LJUBLJANA | FRI Faculty of Computer and Information Science

Application deadline: 9 April 2024

Mentors with positions:

- **Ciril Bohak**: engineering, computer and information science, humanities and linguistics,
- **Luka Čehovin Zajc**: computer vision, deep learning and remote sensing,
- **Franc Jager**: automated biomedical signal processing and digital signal processing,
- **Matjaž Kukar**: computer science and informatics, intelligent systems - software and interdisciplinary research,
- **Denis Trček**: computer science and informatics, cyber security.

Open positions

Laboratory for data technologies

UNIVERSITY OF LJUBLJANA | FRI Faculty of Computer and Information Science

Researchers

- Software engineering and DevOps, full-stack development,
- development of software solutions for decentralised digital identity,
- micro-competency microcredentials,
- cloud computing and service orchestration, integration with sensor systems,
- development of new languages for describing artificial intelligence methods,
- mobile applications,
- the use of decentralised knowledge bases,
- the development of Semantic Web technologies; and others.
- Contact: *vlado.stankovski@fri.uni-lj.si*

DECENTER

ACES

NGI ONTO CHAIN

NGI TRUST CHAIN

essa. European Software Skills Alliance

Piloting on ebsi European Blockchain

ExtremeXP

BUILDCHAIN

swarmchestrate

NOO

Open positions

Language and speech technologies

UNIVERSITY OF LJUBLJANA | FRI Faculty of Computer and Information Science

- Researcher

  Work on applied and research projects related to the use of language and speech technologies (speech recognition and synthesis, text processing, large language models, model learning and adaptation, high-performance infrastructure management, inference and microservices).
  Contact: *ilb@fri.uni-lj.si*

- Researcher

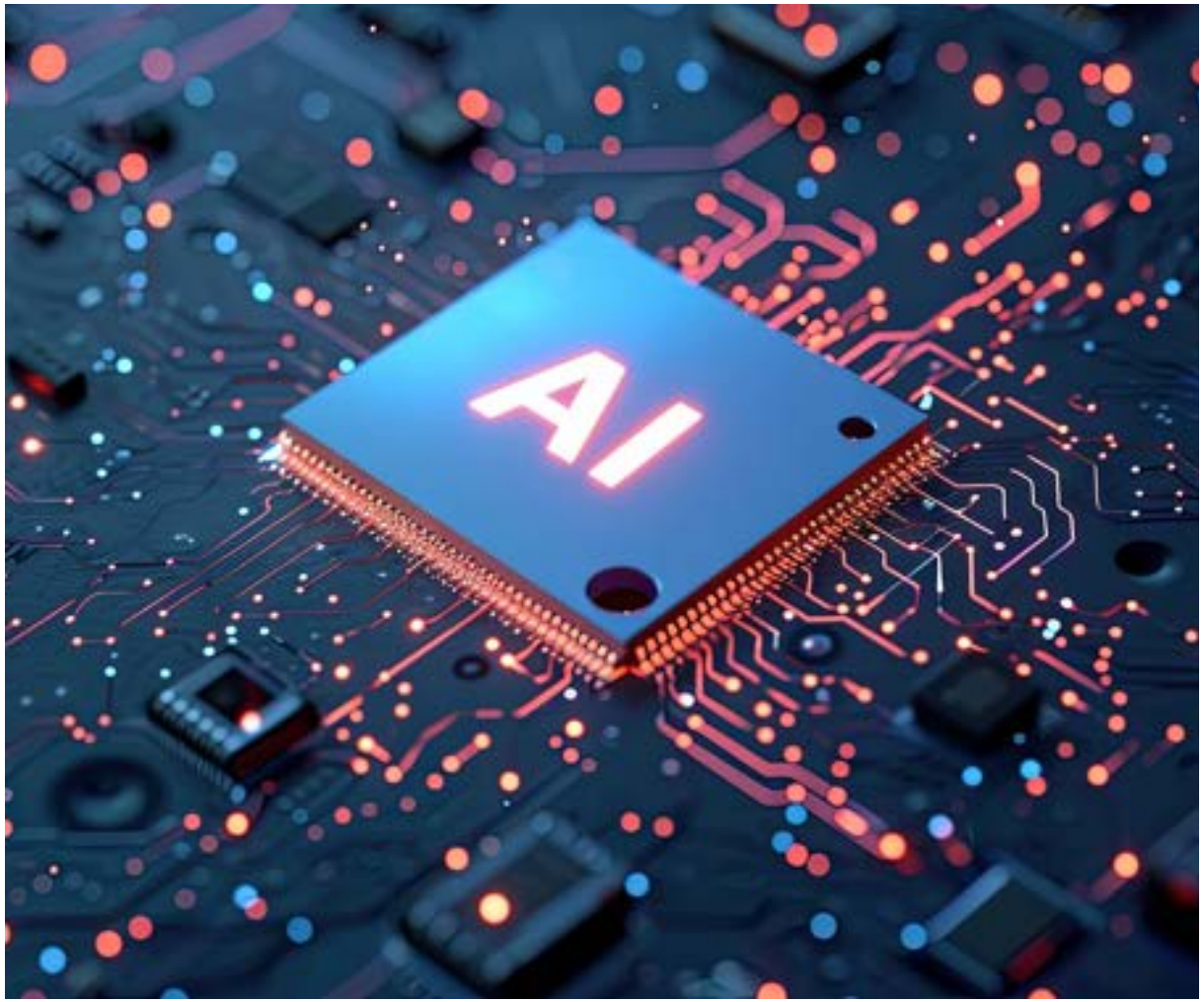
  Work on applied and research projects related to the use of language and speech technologies
  Contact: *Marko.Bajec@fri.uni-lj.si*

Other Open Positions

UNIVERSITY OF LJUBLJANA | FRI Faculty of Computer and Information Science

- Researcher
  Machine learning with a focus on explainable artificial intelligence, large language models
  Contact: *Marko.RobnikSikonja@fri.uni-lj.si*
- Researcher
  Natural Language Processing
  Contact: *Marko.RobnikSikonja@fri.uni-lj.si*

https://fri.uni-lj.si/en/career-faculty



Other Open Positions

UNIVERSITY OF LJUBLJANA | FRI Faculty of Computer and Information Science

- Research assistant and teaching assistant
  Computer vision; participation in projects related to image biometrics
  Contact: *Peter.Peer@fri.uni-lj.si*
- Research assistant and teaching assistant
  Context-aware AI through distributed LLM fine-tuning on mobile devices
  Contact: *Veljko.Pejovic@fri.uni-lj.si*

https://fri.uni-lj.si/en/career-faculty


Questions
& Answers
Scan to ask a question:
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