

Uni Tübingen · Fachschaft Informatik · Sand 14 · 72076 Tübingen

To all first-year students of Machine Learning (M.Sc.) winter semester 2024

Universität Tübingen

Fachbereich Informatik
(Wilhelm-Schickard-Institut)

Fachschaft Informatik

- +49 7071 29-70413
- @ fsi@fsi.uni-tuebingen.de
- www.fsi.uni-tuebingen.de
- Sand 14, Raum C125
 72076 Tübingen

Tübingen, den 2. September 2024

Machine Learning in Tübingen

Dear newly-enrolled student,

We're really happy that you're starting your studies in Machine Learning in Tübingen! To help you get started, we want to provide you with some information to help you get through your first few weeks.

Who or what is this "student council"? We, the student council of computer science, are a group of students from the subjects computer science, bioinformatics, media computer science, medical informatics, and machine learning who commit themselves to the students' interests. Our work includes, on one hand, the representation of students in university bodies, on the other hand, we try to facilitate the university lives of our fellow students (i.e. beginners care, events, mentoring, and so on).

We recommend participating in our beginners' events because the transition to master's studies or from another university respectively often proves to be difficult. This way you get a first look into everyday life in Tübingen. At our events, there will be many students in higher semesters who are eagerly waiting to answer all your questions. You can find an overview of our events on the following pages.

In case you have questions before or after our events, you can reach us by mail at fsi@fsi.uni-tuebingen.de On our home page https://www.fsi.uni-tuebingen.de you can already find helpful information about your studies. If you're interested in collaborating with the student council, just come to one of our meetings! The current date will be published on our web page.

We're excited to meet you at our beginners events! Your student council of computer science

Editors: Charlotte, Fine & Samuel

Your schedule for the first days

Attention! The dates of these events may still change. Be sure to check https://www.fsi.uni-tuebingen.de/du-bist-ersti, we will publish the latest information there.

Note: Please register for all events, unless it is explicitly stated that no registration is necessary. Further details on the respective event and the registration can always be found on https://eei.fsi.uni-tuebingen.de. If you have registered for an event but will not be attending, please deregister again.

Board Game Night 1 - Tuesday, October 1st 2024, Sand

We'd like to invite you to a board game night in relaxed atmosphere at the Sand. We'll provide some games as well as drinks and snacks (for a small donation). Even though our collection is growing steadily, we're more than happy if you bring along your own games!

bus stop: Sand Drosselweg (bus lines 2 & 6)

Flunkyball - Wednesday, October 2nd 2024, 18:00, Sand

Fancy a round of flunkyball? Come along, grab a bottle and have fun! Perfect opportunity to switch off and meet new people. Teams can be formed spontaneously and you can get beer from us for a small donation.

bus stop: Sand Drosselweg (bus lines 2 & 6)

BBQ 1 - Saturday, October 5th 2024, 18:30, in the garden of the Sand

You're not in the mood for cooking this evening? Fear not! The student council invites you for a BBQ. Bring whatever you want to put on the grill, please also bring your own plates and cutlery. The garden has enough space for stuff like volleyball, football etc. as well.

bus stop: Sand Drosselweg (bus lines 2 & 6)

Pub Crawl 1 - Tuesday, October 8th 2024

Tübingen is a town full of small pubs and bars that characterize the nightlife. To calm down from the stress of this information-filled day, we'd like to invite you to go bar-hopping with us. We'll divide up into small groups and visit the different bars in the historic town center. Please bring enough cash, most places we will visit don't accept cards (*none whatsoever*).

Semester Opening by Faculty – Thursday, October 10th 2024, 16:15, Audimax, Neue Aula

This department information event with presentation of all elective courses in the winter semester is especially useful if you are new to Tübingen and want to get a first impression of the professors and courses you will be dealing with in the future.

a bus stop: Uni/Neue Aula or Hölderlinstraße

Board Game Night 2 - Thursday, October 10th 2024, Sand

We'd like to invite you to a board game night in relaxed atmosphere at the Sand. We'll provide some games as well as drinks and snacks (for a small donation). Even though our collection is growing steadily, we're more than happy if you bring along your own games!

bus stop: Sand Drosselweg (bus lines 2 & 6)

Hike 1 - Friday, October 11th 2024, 10:30, on the Neckarinsel (Neckar Island)

On a leisurely hike you will get to know not only your fellow students, but also a few lecturers and the worthwhile surroundings of Tübingen! The meeting point is at the Neckarbrücke *in front of the* restaurant "Neckarmüller".

bus stop: Neckarbrücke (lines 1–22)

Pub Crawl 2 - Monday, October 14th 2024

Ready for round two? Join us for another pub crawl through Tübingen's best spots. We'll split into smaller groups again and visit the different bars in the historic town center. Please bring enough cash, most places we will visit don't accept cards (*none whatsoever*).

Academic Game Night - Thursday, October 17th 2024, Sand

This game night is a bit different. You can expect to find drinking games here, but there are also non-alcoholic drinks for those who prefer to stick to water or soft drinks.

bus stop: Sand Drosselweg (bus lines 2 & 6)

Crate Run - TBA

Please join us on our crate run. Each team of two to three will have a crate (can be purchased on site). The goal is to have emptied the crate at the finish line. On your tour you will have to visit a few stops. We don't force anyone to drink, you are also welcome to drink non-alcoholic beer, soft drinks, or whatever you like. So if you're up for meeting new people, good vibes, and a little sporty drinking, feel free to drop by!

a bus stop: Schleifmühleweg (bus lines 11 & 12)

BBQ 1 - Saturday, October 19th 2024, 18:30, in the garden of the Sand

Because it's so nice, we'll have another barbecue! Bring whatever you'd like to grill, and don't forget your own plates and cutlery!

You can also play volleyball, football, and more in the garden. We're looking forward to seeing you there!

bus stop: Sand Drosselweg (bus lines 2 & 6)

Capture the Flag - Sunday, October 20th 2024, 14:00, Sand

We play a round of Capture the Flag together in real life. A wonderful opportunity to test our teamwork skills and meet new friends (or enemies).

bus stop: Sand Drosselweg (bus lines 2 & 6)

Hike 2 - Friday, October 25th 2024, 10:30

Time for another hike! Join us for a relaxing stroll through the beautiful Tübingen countryside. This is a great chance to enjoy nature, chat with fellow students, and maybe even meet some of your professors. The meeting point is at the Neckarbrücke *in front of the* restaurant "Neckarmüller".

bus stop: Neckarbrücke (lines 1–22)

Clubhausfest - Thursday, October 31st 2024, 21:00, Clubhaus

Every thursday during the lecture period, a different student body or group of students organizes the "Clubhaus Fest" in the Clubhaus, which locates directly opposite of the new auditorium. Today the attendance is particularly worthwhile, because the student councils of computer science, cognitive science, psychology, neurobiology and geography are hosting the event! No registration necessary.

🖨 bus stop: Uni/Neue Aula or Hölderlinstraße

fsi trial meeting – TBA (regular meetings: Thursdays, 18:30, Sand, A104)

Hopefully, we were able to arouse your interest in student council work with our events. But we do much more than just first-year events, we represent the students in committees, we are contact persons, provide infrastructure and tools and much more. Just come to our tryout meeting ¹ and see if you like it!

No registration necessary.

bus stop: Sand Drosselweg (bus lines 2 & 6)

¹Of course we are also very happy if you already come to regular meetings before the trial session

What to expect in your studies timetable

In your master studies you are relatively free in how you compile your timetable. However, it is important that you cover your optional areas of courses with ECTS credits. The following tables show some examples of choices for courses you can make, depending on which direction you want to focus. Note, that some lectures are only held in the winter, some only in the summer terms.:

Focus on Theory:

| | . cous on theory. | | | | | | |
|------------------------------|---|---|---------------|--|--|--|--|
| 1st. Semester | 2nd. Semester | 3rd. Semester | 4th. Semester | | | | |
| Deep Learning | Statistical Machine Learning | Practical Machine Learning | Master thesis | | | | |
| Data Literacy | | Numerical Algorithms of ML | | | | | |
| | Probabilistic Inference and Learning | | | | | | |
| Mathematics of ML | | Seminar ML | | | | | |
| | | Interactive Theorem Proving Reinforcement Learning | | | | | |
| | Convex and Nonconvex Optimization | | | | | | |
| Algorithms and Complexity | | | | | | | |
| | Efficient ML in Hardware | | | | | | |
| 30 LP | 30 LP | 30 LP | 30 LP | | | | |

ECTS ML-FOUND Foundations of Machine Learning 24 ML-DIVERSE Diverse Topics of Machine Learning 36 ML-CS General Computer Science 18 ML-EXP Expanded Perspectives 12 Master thesis Thesis 30

Focus on Industrial Applications:

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|----------------------------------|---|-------------------------------|---------------|--|--|
| 1st. Semester | 2nd. Semester | 3rd. Semester | 4th. Semester | | |
| Deep Learning | Statistical Machine Learning | Practical Machine Learning | | | |
| Data Literacy | | Self-Driving Cars | | | |
| Mathematics of ML | Probabilistic Inference and Learning | Seminar ML | Master thesis | | |
| | | Advanced Java | | | |
| | ML in Graphics and Vision | | | | |
| Cognitive Modelling | | Advanced SQL | | | |
| | Ethics in Science | | | | |
| German as Foreign | German as Foreign | German as Foreign | | | |
| Language | Language | Language | | | |
| 30 LP | 30 LP | 30 LP | 30 LP | | |

ECTS ML-FOUND Foundations of Machine Learning 24 **ML-DIVERSE** Diverse Topics of Machine Learning 36 ML-CS General Computer Science 18 ML-EXP **Expanded Perspectives** 12 Master thesis Thesis 30

| Focus on Biomedicine: | | | | | | | |
|-----------------------------------|---|--------------------------------------|---------------|--|--|--|--|
| 1st. Semester | 2nd. Semester | 3rd. Semester | 4th. Semester | | | | |
| Deep Learning | Statistical Machine Learning | Practical Machine Learning | | | | | |
| Data Literacy | | Time Series | | | | | |
| Mathematics of ML | Probabilistic Inference and Learning | Seminar ML | | | | | |
| | | Computational Microbiome Analysis | Master thesis | | | | |
| Visualisation of large-scale data | Neural Data Analysis Ethics in Science | Systems Biology | | | | | |
| German as Foreign Language | German as Foreign Language | German as Foreign Language | | | | | |
| 30 LP | 30 LP | 30 LP | 30 LP | | | | |
| | | ECTS | | | | | |
| ML-FOUND | Foundations of Machine Learning 24 | | | | | | |
| ML-DIVERSE | Diverse Topics of Machine Learning 36 | | | | | | |
| ML-CS | General Computer Science 18 | | | | | | |
| ML-EXP | Expanded Perspectives 12 | | | | | | |

All three lectures out of *Foundations of Machine Learning* are mandatory, you need 24 ECTS. Out of *Diverse Topics in Machine Learning* you need 36 ECTS, of which no more than 6 ECTS can be from seminars and no more than 6 ECTS can be from practical ML. The areas *General Computer Science* and *Expanded Perspectives* are special. Here, you can attend any graded lecture out of Computer Science (for General Computer Science) or any graded lecture out of all the offered lectures in the whole university, except university sports (for Expanded Perspectives) for a total of 18 ECTS and 12 ECTS respectively. Further Information can be found in your module handbook at:

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https://uni-tuebingen.de/de/135400 Important Online Portals

Master thesis

Thesis

To avoid missing out on any information concerning lecture times and places, please take a look at the two most important online learning portals.

- alma https://alma.uni-tuebingen.de
 alma is the central course catalogue of the university. Once you've found your course here,
 you will find links to any course specific websites or portals. Towards the end of the semester
 you can register for your exams via alma as well.
- Ilias/moodle https://ovidius.uni-tuebingen.de, https://moodle.zdv.uni-tuebingen.de Ilias and moodle are the most commonly used communication tools. Although they hold lists of all courses, too, we would recommend alma as the start of your search for courses.

Starting times and locations

Soon you'll notice: 9 o'clock means 09:15. At university lectures usually start c.t. (cum tempore - lat. with time). If something starts "sharp", it will be announced as s.t. (sine tempore - lat. without time). In terms of times and locations you should take a look at alma before lectures start: https://alma.uni-tuebingen.de

Mailinglists

There are several mailing lists so that important information reaches you.

The complete list can be found here: https://www.fsi.uni-tuebingen.de/infos/maillists

- **info-studium**: **Subscription is mandatory.** This is the only way the professors can reach you!
 - Registration at: https://www.fsi.uni-tuebingen.de/mailman/listinfo/info-studium.
- info-talk: This list is for topics that are not directly related to your studies, but may still be of interest. Registration at: https://www.fsi.uni-tuebingen.de/mailman/listinfo/info-talk.
- info-jobs: For paid offers of HiWi² jobs, internships as well as work-study jobs. Registration at: https://www.fsi.uni-tuebingen.de/mailman/listinfo/info-jobs.
- coding: Hackathons and other related events.

 Registration at: https://www.fsi.uni-tuebingen.de/mailman/listinfo/coding.
- sport: If you are one of those *computer scientists who, contrary to the stereotype, like to do sports, the list sport is recommended to you. Registration at: https://www.fsi.uni-tuebingen.de/mailman/listinfo/sport.

Public transport in Tübingen

Bus schedules can be found online³ and in the Naldo app for Android and iOS.

The best way to get to the "Morgenstelle" (see city map on the last page) is to take the bus (destination stop BG-Unfallklinik⁴). There is a very limited number of parking lots at the Morgenstelle, but one has to apply for permission to use them, first. Most Master events/lectures take place on the "Sand", the place of the WSI (Wilhelm-Schickard-Institut). To get to the Sand, take line 2, stop *Sand Drosselweg*. It is also easily reached by car as there are multiple parking lots. Some Machine Learning lectures take place in the Maria-von-Linden-Straße 6. To get there, take line 3, stop *Maria-von-Linden-Straße*. With your semester fee, you have already paid part of the semester ticket for the bus (in addition to the student union fee and the matriculation fee).

²wissenschaftliche/studentische Hilfskraft

³https://naldo.de

⁴**not** "Auf der Morgenstelle"!

The semester ticket costs 141,90 EUR and is valid in the whole Naldo area, a public transport system around Tübingen (unfortunately not to Stuttgart, but to Überlingen at Lake Constance).

The Deutschlandticket JugendBW (Studierende) costs 153,70 EUR and is valid in the whole of Germany (not for long-distance lines, i.e. ICE, IC, EC and long-distance coach). In contrast to the Semesterticket, the D-Ticekt JugendBW has an age restriction, it can only be purchased by students who are under the age of 27 at the beginning of the semester. Both tickets are valid from October 1st.

As an alternative for older students, there is also the normal Deutschlandticket, which is valid for one month and is available for 34,00 EUR. It should be noted that the paper ticket must be ordered by the 15th of the previous month at the latest, and the mobile ticket at least two days before the start of the month.

All three tickets are available in the DB travel centres and online⁵. For the online purchase, you need a login ID of the university (starting with zx). In order to buy one of these tickets offline, you will need to show your student ID and the Semester Ticket Certificate⁶. For the D-Ticket JugendBW (Studierende), you must also show an official photo ID as proof of age.

Naldo's leisure time regulations do also apply: Here you can use buses and trams within the Naldo area free of charge on weekdays from 7 p.m. and all day on weekends. All you need is your student card with the Naldo logo on it. Especially interesting if your parents are visiting Tübingen: On Saturdays, you can take a free bus in the city area (tariff level 11), no matter if you are studying or not.

Housing in Tübingen

Unfortunately, the topic of housing has not lost its explosive power in Tübingen in recent years, so it may be difficult to find accommodation. We recommend the following two Studierendenwerke as your first points of contact: Application forms for a place in a hall of residence can be obtained from either the Studierendenwerk AdöR in the administration of the dormitory, Fichtenweg 5, 72076 Tübingen, or at the Studierendenwerk e.V., Rümelinstraße 8, 72070 Tübingen. For the private housing market, Wednesday and Saturday editions of the Schwäbisches Tagblatt are available. On the Internet the platform www.wg-gesucht.de is your best option. You can find more information on our homepage at https://www.fsi.uni-tuebingen.de/erstsemester-faq.

⁵https://tickets.naldo.de

⁶alma > My Studies > Student Service > Requested Reports/Reports > Naldo-Bescheinigung

