Faculty of Science

# Contract: Project in Practice

## PERSONAL INFORMATION

**Ucph-username** *

sxn123

**First name** *

Alexander

**Surname** *

Mittet

**E-mail** *

alexandermittet@gmail.com

**Telephone number** *

31951118

**Study programme** *

| Study programme | Bachelor i machine learning og da |

**Specialisation (if applicable)**

| Specialisation (if applicable) | |

## INFORMATION ABOUT MAIN SUPERVISOR

**Name** *

Bulat Ibragimov

**E-mail** *

bulat@di.ku.dk

**Department** *

| Department | Department of Computer Science |

**Department** *

| Department | Choose from the list |

## PROJECT IN PRACTICE WITH A COMPANY

**The Project in Practice is carried out in cooperation with the following company/organisation:** *

Science Innovation Hub

**Information about the contact person in the company/organisation:**
**Name** *

Jakub Jan Rubinowski

**E-mail** *

jr@science.ku.dk

**Telephone number** *

51 19 55 91

**Place of employment** *

Science Innovation Hub

## INFORMATION ABOUT THE PROJECT PERIOD

**Project workload (ECTS):**                                                                      *

15 ECTS credits

**Block of Commencement:**                              *   **Block of End of Project:**          *

Block 1                                                     Block 2

**Date of submission for project report:**               *

04/12/2023

## COMPULSORY COURSE

Does the programme require that a Project in Practice includes a compulsory course or an event during the project period?

⦿ Yes      ○ No                                                                                   *

If yes, how?

5 workshops run by science innovation hub

## THE FOCUS OF THE PROJECT

☑ The Project in Practice is prepared as a group project

Students on study programmes taught in English must write in English. Students on study programmes taught in Danish may   *
write in Danish or English. The project contract must state which language has been chosen..

**State in which language the Project in Practice is prepared**

○ Danish    ⦿ English    ○ Swedish    ○ Norwegian

**Title/topic of the Project in Practice**                                                        *

TrafficPulse

Description:                                                                                      *

Traffic Pulse is an innovative software project leveraging advanced neural networks and computer vision technology to provide real-time traffic data for cities. The objective is to streamline the traditional process of traffic counting, which relies heavily on manual labor, and instead automate it using artificial intelligence.
Traffic Pulse is designed to accurately count and differentiate various types of vehicles including cars, bikes, and other modes of transportation. By using real-time video feeds from traffic cameras, the system is capable of identifying and tracking vehicles, subsequently storing this data into a comprehensive database.
The amassed data becomes a vital resource for traffic analysis, city planning, and congestion management. With the potential for integration into larger smart city infrastructure, Traffic Pulse aims to support data-driven decisions, facilitating improvements in urban transportation systems. Furthermore, this data can be utilized by data scientists to conduct in-depth research and analysis, contributing to advancements in traffic management and planning.
This software stands to greatly reduce the manual effort involved in traffic monitoring, while increasing the accuracy

and timeliness of the data collected. The end goal is to promote efficient and sustainable city planning, making our urban spaces more livable and less congested.

## WORKLOAD

The workload of the student makes 412 or 824 hours, depending on the project workload, and is distributed as following:

| | | |
|---|---|---|
| Supervision: | 10 | hours * |
| Preparation: | 125 | hours * |
| At the company: | 217 | hours (including other compulsory attendance) * |
| Report writing: | 60 | hours * |
| Total: | 412 | hours |

## PROJECT IN PRACTICE AS GROUP PROJECT

**Add the other members of the group here**

**Name** *   **Ucph-username** *

Marcus Rasmussen     dlf903

**Information about project in practice and exam**

The Project in Practice is prepared as a:

⦿ Joined report    ○ Report with individual contributions     *

The exam is held as a:

⦿ Group exam    ○ Individual exam     *

## MATCHING OF EXPECTATIONS WITH THE COMPANY

**Expectations of UCPH for the company**

- During the stay at the company, it is expected that the student will be treated as any other new colleague.

- The contact person of the company is expected to make the student feel comfortable and help with the practical aspects during the startup and throughout the project period.

- The contact person of the company is expected to help the student academically concerning the specific tasks in the company to the extent of the contact person's knowledge.

Other expectations for the company:

**Expectations of UCPH for the student**

- The student is expected to be punctual regarding meetings and meeting time.

- The student must be well prepared and eligible at the company.

- The student is expected to show its academic knowledge and initiative in the tasks that are agreed by the company, the supervisor and the student to handle.

- The student must show initiative at the company and inform the contact person of the company, if the student needs more work or needs help with its tasks.

- The student is expected to show its academic knowledge and initiative in the tasks that are agreed by the company, the supervisor and the student to handle.

Other expectations for the student:

INFORMATION ABOUT SUPERVISION

**The main supervisor and the student(s) must align their expectations for the project process with each other by providing the following information:**

State the expected number of hours of supervision: 10 *

State how often you need to meet (prepare meeting schedule if needed): *

We have established a recurring weekly meeting, with a flexible schedule, dedicated to discussing and reviewing the progress of our project. Each session is scheduled to last for 30 minutes, providing ample time to cover significant developments, address any challenges encountered, and map out strategies for the subsequent week.

State what is expected of the supervisor at the meetings: *

The supervisor is expected to provide technical guidance on algorithm selection, problem-solving, debugging, testing, and verification, while also offering academic support, feedback, maintaining effective communication, and fostering a positive, collaborative learning environment. Their role is to guide, assess, and enhance the overall quality and progress of the project.

State what is expected of the student(s) at the meetings: *

The student is expected to actively engage in the project, apply learned concepts, problem-solve, demonstrate initiative, communicate effectively, and consistently contribute to the team's work. They should be open to feedback, strive for

continual learning, and maintain a high standard of academic integrity and professionalism throughout the project.

Other:

Read where you must submit the contract: Studieinformation på KUnet > Bachelorprojekt og andre projekter > Tilmelding og kontrakt.

**Student**

**Date**

04-07-2023

When signing this contract I guarantee that I have read the university's guidelines on how to avoid plagiarism: Studieinformation > Kurser og undervisning > God videnskabelig praksis.

**Main supervisor**

**Date**

Type text here

01.08.2023

**Head of studies or the Project in Practice coordinator of your programme**

**Date**

Stefan Sommer (godkendt i e-mail)
SL for Machine Learning og Datavidenskab

12/9-2023

8/8-2023

**Contact person of the company**

**Date**

Jakub Rubinowski

14/08/2023

Read more about UCPH's **data policy (https://informationssikkerhed.ku.dk/english/)**

# SCI-DIKU-uddannelse

| | |
|---|---|
| **Fra:** | Stefan Sommer |
| **Sendt:** | 12. september 2023 01:26 |
| **Til:** | SCI-DIKU-uddannelse |
| **Cc:** | Torben Ægidius Mogensen; Alexander Christian Ebsen Mittet; Marcus Nygaard Skovgaard Rasmussen |
| **Emne:** | Re: We have found a supervisor! |
| | |
| **Kategorier:** | Projekter; Jette |

Kære all,

også godkendt fra min side.

Held og lykke med projektet.

Vh,
Stefan

> On 10 Sep 2023, at 23.25, SCI-DIKU-uddannelse <uddannelse@diku.dk> wrote:
>
> Hej Stefan
> Cc. Marcus, Alexander og Torben
>
> Vil du godkende de to vedhæftede kontrakter?
> Torben Mogensen har allerede godkendt dem, men da de studerende er indskrevet på Machine Learning og Datavidenskab, skal vi have din godkendelse.
>
> @Alexander og Marcus: Vil I fremover huske at anvende jeres KU-e-mails (og ikke jeres private e-mails), når I udfylder og indsender dokumenter mv. til os?  Tak for forhånd 😊.
>
>
> Med venlig hilsen
>
> Jette Giovanni Møller
> Studieadministrativ medarbejder
>
> Københavns Universitet
> Datalogisk Institut
> Universitetsparken 1
> Lokale 771-01-3-21
> 2100 København Ø
>
> DIR 35 33 56 89
> jettegm@di.ku.dk
> www.diku.dk
>
>
>
> Sådan beskytter vi persondata
>
>
> -----Oprindelig meddelelse-----
> Fra: Torben Ægidius Mogensen <torbenm@di.ku.dk>
> Sendt: 8. september 2023 11:15
> Til: Alexander Mittet <alexandermittet@gmail.com>; SCI-DIKU-uddannelse
> <uddannelse@diku.dk>