

Project Proposal – Internship



Version: 7
Period: Spring 2023

Version Control

Name	Submission Date	Changes
Project Proposal	09/01/2023	-
Project Proposal v1.1	12/01/2023	Add - Version Control Change - 1.3 Problem/opportunity description - 2.2 Research aspects - 3 Expertise/ Guidance

Goal and use of this document

The proposal is used to describe a practical research internship which is carried out in semester 5 of the study program. Through this form the student requests approval for the assignment from the internship coordinator. This document is also used to receive feedback from client and coordinator and should lead to all three parties having one single view of the assignment. The student is responsible for writing the content, based on input of the organization and feedback of the coordinator. This document may be written in Dutch.

Student details

Student number : 457632
First name + Family name : Kaan Gögcay
Location : Eindhoven
Profile Semester 3 : S
Specialisation Semester 4 : AI
Internship choice : S/AI
Dutch-speaking? : Yes

Internship period

Start date : Monday FHICT-week 1
End date : Friday FHICT-week 18

Organisation details

Name : ROC Tilburg
Visiting address : kasteeldreef 122
Zipcode + City + Country : 5046 CV, Eindhoven, Nederland
Phone : 013 539 7070
Website : <https://www.roctilburg.nl/over-roc-tilburg/practoraat>
Own Company ("Eigen bedrijf")? : No

Company mentor

(The person who guides the student on a regular basis)

First name + Family name : Erdiñç Saçan
Department : Practoraat Tilburg
Position : Practor

Project Proposal – Internship



Version: 7
Period: Spring 2023

Background (highest education) : Master Degree, Information Management
Background URL (e.g. LinkedIn) : <https://www.linkedin.com/in/erdincsacan/>
Phone : +31 638501002
Email : e.sacan@fontys.nl
Assignment in ASAM? : Niet zeker, ik heb de stage niet vanuit ASAM gevonden maar het zou kunnen zijn dat het deze ASAM link is <https://asam.fhict.nl/student/Assignment/Details/125ed838-a87b-46a5-a5f9-28ee56b6a5a8>

1. Context & Problem/Opportunity

Practoraat Tilburg is aware that there are lots of students that go to school reluctantly. To solve this, they try to find solutions using technology. They want to use technology to make school more fun for students.

My assignment is to help students that study Automotive Engineering to make their lessons more available. What I mean with this is. Usually they get taught at school in practice for example where to place a part. Of course you can't practice this at home. But my assignment is to make this somehow possible. The way I will accomplish this is open. So I could just make a 3d environment serious game, or a virtual reality environment or even something with augmented reality. This doesn't only help the student, but also the teacher. Since the teacher has to go over the same tutorial with each student 1 on 1. The application I would develop could let all students follow the same tutorial at the same time, saving lots of time for the teacher.

1.1 Context & Background

To start with they spent a lot of time in listening to companies and experts. Also have they spent time in researching VR, AR and gamification and for the future they want to research the metaverse and AI.

I mainly found articles written by Practoraat Tilburg (<https://www.roctilburg.nl/over-roc-tilburg/practoraat/artikelen-practoraat>). The most recent product they delivered is a mobile app for the playstore called Edumotive. In this app, students can learn more about car parts. Find out more about Edumotive here <https://www.roctilburg.nl/over-roc-tilburg/practoraat/artikelen-practoraat/practoraat-interactieve-technologie-van-roc-tilburg-levert-eerste-applicatie-in-playstore>

1.2 Current situation & Stakeholders

Recently they have launched an app Edumotive. This app makes it possible for students to learn about car parts. So there has been already made a step into the right direction.

The stakeholders are the Automotive- Teachers and Students. Beneath explained why,

Automotive Teacher: By the launch of my app teachers will have way more time to spare. Instead of going through in real life tutorials with all students 1 on 1. They could spend their time on coaching the students while they go through the tutorial themselves.

Automotive Students: By the launch of my app students will have to adapt to a different way of learning. Also will they unlock the ability to study in real life tutorials from home.

Scope of my project

- An environment you can explore
- A way to add real life objects to the environment
- A way to create a tutorial yourself by completing certain tasks in a certain order

1.3 Problem/opportunity description

Problems

- A bug gets found while the product is already done and in use. -> let the next intern fix it?
- A student doesn't have a phone or a computer to practise at home
- If VR will be implemented, how useful would this solution be since almost no one has the facilities to use VR, also, if school would get multiple VR setups for the students. This would cost a lot of money

Opportunities

- If using VR, try to make implement stuff that's not possible in the real world, so people actually have a reason to prefer VR over the real world. Make use of the possibilities and opportunities of VR.
- About AR. An app Wintor just came out. This fixes the entire project is some way, so if the stakeholders want it I could try to make use of the Wintor app but that would result in me learning not a lot. And it would feel kinda lame to just use an app for the internship

Example

1. Teacher is in the garage
2. Student walks in
3. Teacher shows in practise to the student what steps he should execute
4. Student executes all steps
5. Students walks out

This is a real life example. I should try to digitalise this process.

Project Proposal – Internship

Version: 7
Period: Spring 2023



Added Value of the internship

For them the added value will be that they have a solution to educate automotive students more efficient.

For me the added value is to learn about topics I almost don't know anything of.

2. Assignment

2.1 Desired project result

My desired goal is to have a working application that could actually be used in practice.

Project goal

An application wherein (as a teacher) you can create tutorials that students can follow using hardware like a pc or phone or anything else I'm open in that decision. This would result in teachers not having to give the same tutorial over and over again to everyone.

Deliverables

- Automotive Practice App

Project IT-deliverable

Deliverables

- Automotive Practice App

2.2 Research aspects

Research questions

Problem: Teacher gives the same tutorial over and over to every single student. They want a solution to digitalise this process so everyone could do this process on their own. Preferably making use of mixed reality.

Main Question: How can I digitalise a tutorial making use of mixed reality?

Sub Questions

- What is Mixed Reality?
- What solutions could I use to realise my project?
- Which is the most suitable for my project?

Research approach

The main goal is to answer the main question of the project. I want to do this by researching the sub questions. By getting answers on all my sub questions I should be able to answer the main question. I'm not planning to use a specific framework for my research. I'm planning on answering my sub questions by informing myself using trustworthy sources. These sources will also be included inside the document.

Project Proposal – Internship

Version: 7
Period: Spring 2023



3. Guidance & Expertise

Coach/Mentor

Background: It's actually quite a lot. Instead of me trying to rewrite everything I would suggest checking out his LinkedIn <https://www.linkedin.com/in/erdincsacan/details/experience/>

Study: <https://www.linkedin.com/in/erdincsacan/details/education/>

I can reach out to him whenever I need to. I feel like its sort of the same as at fontys where I just work and ask help whenever I need. However, im only at location 3 days a week.

Expertise / Guidance

Master Information Management, Tilburg University
Bachelor Bedrijfskundige Informatica, Fontys ICT

Daarnaast collega's met Software en Media ervaring

1 dag in de week, daarnaast beschikbaar via tel, teams

4. Personal & Professional goals

I've looked up the most important soft skills to have, and most of the time I see skills I already have. So it was quite hard to choose 3

Personal goal	Describe what exactly you want to achieve and how to work on this.
Leadership	I feel like I can be a good project leader with a select group of members. But I'd like to become a leader that can lead any type of group to success. But I don't know how I could accomplish this in the internship.
Time Management	I have always hated time management inside software development. I never know how long something will take and I believe that it's not weird because you also have to take into account research and the time it takes to understand a topic before you can actually work on it. I can work on this by doing point poker and keeping track of how long stuff takes. And in the end I can compare it to see if I was accurate.
Professional Communication	I want to become more professional in the way I communicate digitally. I chose this because the product owner from the previous semester let me know I could work on that. I can work on this by communicating professionally to my semester coach and my intern coach. With professional I mean formal.