Interdisciplinary Project (IDP) @ 5U AI

Build the AI Workforce for the €350 B Freight Industry

Who We Are

5U AI is on a mission to automate Europe's freight-forwarding industry with an AI workforce. We tackle inbox overload, manual data entry and tedious operational processes - helping logistics companies scale faster while drastically reducing their operational costs..

What You Will Do

- Architect multi-step AI workflows that intelligently extract, validate, and route logistics data from unstructured data sources.
- Implement context-aware agents using LangGraph / LangChain and cutting-edge LLMs.
- Develop **production-ready full-stack APIs** and integrate them into the 5U AI platform from **backend to frontend**.
- Engineer sophisticated extraction pipelines that convert unstructured logistics communications into clean, queryable database records.

Your Profile

- You have a strong bias toward action and delivering results.
- You are enrolled Master's student at **TUM** (Informatics, Data Science, M&T or similar).
- Proficient in **Python** with strong software-engineering fundamentals.
- Eager to dive deep into **LLM frameworks & agentic AI**.

What You Gain

- **16 ECTS credits** toward your degree.
- Ship **production code** powering a live startup product.
- **Direct contact** with customers who are leading logistics companies around Europe.
- **Direct mentorship** from 5U AI founders & industry advisors.
- First-hand insight into **AI × Logistics** startup life.

Key Facts

Team	Apply alone or bring your team consisting of 2–3 Master's students in total
Duration	6 months · ≈ 20 hrs / week or 3 months full-time
Start Date	ASAP — latest **1 September 2025**
Location	TUM.ai office / Hybrid
Language	English

Ready to shape the future of logistics?

Send your CV to → talent@5u.ai

AI Agentic Workflows for Intelligent Automation in Freight Logistics

Company: 5U AI
Contact: Yagiz Abik (yagiz@5u.ai)
Start dates: Earliest: ASAP Latest: 1 September 2025
Requested Team Size: Can be one/multiple team members

Project Objective

Design, develop and test a **modular AI agent platform** that enables logistics companies to automate core freight-forwarding workflows. The agents will ingest unstructured data from emails and PDFs (e.g. Requests for Quotation, booking confirmations), extract key information, and interact with the system of records and other communication channels via 5U AI platform - reducing manual workload and increasing operational efficiency.

Student Tasks & Work Packages (single, full-stack track)

1. **Support designing end-to-end architecture** for an autonomous AI agent, covering data ingestion, reasoning and action execution.

2. **Implement & fine-tune the agent's brain** using LangGraph, LangChain or AutoGen plus state-of-the-art LLMs.

3. **Develop production-ready APIs & data pipelines** connecting the agent to the 5U AI core platform and external knowledge bases (vector DBs, TMS).

4. **Engineer data transformation**: Turn chaotic logistics emails/PDFs into clean, structured database records.

5. **Ensure production-grade quality**: Security, scalability, reliability, tests, and clear documentation.

Key Technologies

Python, FastAPI, ReactJS/NextJS, LangGraph/LangChain, Vector DBs (Pinecone / Chroma), PostgreSQL, Docker, GCP