

# DIGIEDUHACK SOLUTION CANVAS

**Title of the solution:**

**Challenge addressed:**

**Background of the team:**

(multiple selections possible in case of mixed teams)

**Team name:**

**Challenge category:**

Higher Education Students

Teachers

Others (please specify)

Researchers

Primary School Students

Professionals

Secondary School Students

## Solution description

What is the final product/service/tool/activity you're proposing? What are its main elements, technologies and objectives? Could you please include a brief implementation plan with some key overall milestones, resources required and eventual barriers foreseen?

How could your solution be used to enhance digital education nowadays? How could its success be measured?

We are proposing an individualized learning platform tailored for bridging the gap between higher education and market requirements with a focus on IT skills. At its core, Gefira is much more than an average GPT wrapper.

It implements RAG on course materials uploaded by the user, that the system indexes, for a relevant and personalized experience. The system then detects the gap between the course materials and industry standards and tasks the user with creative real-world projects. It then serves as a smart assistant with code editing capabilities (Github MCP) or task access (e.g. HackTheBox MCP for cybersecurity).

In the background the system maintains a knowledge graph of the user's skills and offers smart proposals for new, connected skills, that could be relevant in the industry. It could also maintain the CV through Google Docs MCP.

To reinforce and further motivate the user, we decided to add elements of gamification - a shiny badge for each new skill, a learning streak as well as luck based rewards for the extra dopamine kick. Another useful feature could be smart reminder notifications, motivating the user and reinforcing spaced repetition.

The implementation shouldn't be too complex, with modern AI tools serving as helpers. Key challenges would be to ensure a secure system and refining the provided suggestions in accordance with current market trends, as well as context management for the used LLMs. Another challenge could be system scaling. In addition, the system would require funding for all the APIs envisioned for usage. Furthermore, the system would need constant maintenance and would need to adjust to new LLMs that are coming out at a monthly pace.

This solution has the potential to make its users leave higher education as market-ready individuals in an interesting and modern way. Its success could be measured by the amount of jobs received by our clients in the ever-increasingly difficult job landscape, in contrast to non-users.

## Context

What is the current or future problem you're trying to solve? How does your solution align with DigiEduHack 2025 annual theme?

How does your solution confront the challenge posed by the hackathon organiser and how does it address the challenge category?

The problem we are addressing is the growing mismatch between what universities teach and the practical skills required in today's job market, especially in the IT sector. Any student who has taken part in an IT internship could testify on the massive difference in required skills for the job and the actual coursework at university.

With exponential tech advancements in the present AI era, the problem threatens to become even bigger over time. Consequently, it's urgent we find a solution and adapt modern education to these rapid changes.

We believe that Gefira perfectly aligns with the DigiEduHack 2025 annual theme, as it offers a completely new layer to digital education.

Our solution aims to bridge the gap between higher education and real-world skills, directly addressing the posed challenge.

## Target group

Who is/are the target group/s of your solution and how will they benefit from it? Why is your solution relevant to them? How do you plan to engage these groups so you fully meet their specific needs?

Our primary target group are university students and young professionals, especially those in technology-oriented fields such as computer science, data analysis, and cybersecurity. These individuals often possess theoretical knowledge but lack the practical, market-ready skills demanded by modern employers.

The secondary target group could include educators and academic institutions that wish to modernize their teaching methods, track students' progress more effectively, and align coursework with evolving industry standards.

By using our platform, students could gain personalized, project-based learning experiences that mirror real-world tasks, helping them build portfolios and confidence before entering the job market. Professors could use our system to more closely align their curricula to the industry standards/trends as well as track student progress.

To engage these groups, we plan to collaborate with universities, student organizations, and internship programs for pilot testing and feedback collection. The platform's gamified environment (badges, streaks, and adaptive challenges) will ensure consistent user motivation, while AI-driven personalization will make each learner's path relevant and rewarding. This combination of collaboration, feedback, and engagement ensures that our solution truly addresses the specific needs of both students and educators.

## Impact

How will your solution catalyse changes in education and what impacts will it have at social and environmental level? Could you provide examples or scenarios illustrating how such changes and impacts might unfold?

Gefira acts as a catalyst for redefining education by directly connecting academic learning with real-world application. Its main impact lies in transforming how students develop skills - shifting focus from memorization to continuous, project-based improvement. Through AI-guided practical learning paths, the system helps universities finally bridge the gap between education and employability.

On a broader level, Gefira promotes a cultural change where students view learning as a personal and adaptive process rather than a rigid academic requirement. As professors integrate it into their teaching, it could standardize the use of digital tools, feedback systems, and skill-based evaluation across institutions. The result is a more dynamic and transparent education model focused on real progress.

Socially, Gefira democratizes access to quality education, giving equal opportunities to students from smaller universities or rural areas where mentorship and modern tools are limited. This reduces educational inequality and promotes digital inclusion, in line with SDG 4 (Quality Education).

Environmentally, Gefira supports sustainability by moving practical training and certification online, reducing travel, printing, and material use. Universities using it could lower their footprint while providing a richer and more flexible learning experience.

For instance, a computer science student could be assigned a real cybersecurity task through HackTheBox and receive immediate AI feedback. A design student might get a small industry-style project using Figma or AutoCAD. These personalized challenges grow into a verified digital portfolio - something employers actually value - turning education into employability.

## Describe it in a tweet

How would you describe your solution in a short catchy way with maximum 280 characters?

Gefira: bridging the gap between "I have a degree" and "I have a clue."

AI-powered learning tool that turns "whAt's a DoCker?" into "deployed and documented." Your resume called - it's tired of lying.

## Innovativeness

What makes your solution different and original? Are there similar solutions or approaches currently available or implemented by education sector practitioners? If so, why and to what extent is your solution better?

Our solution is unique because it not only explains or teaches content, but actively identifies the difference between university coursework and current industry skill requirements. Unlike traditional learning platforms with fixed paths, our system uses RAG to personalize learning based on the student's own materials and current knowledge level. It then generates real world tasks and integrates with professional toolchains, allowing students to build practical portfolios. While other AI study tools mainly summarize content, our platform focuses on developing employable skills. This makes our approach more effective in preparing students to become job-ready in a rapidly evolving market.

## Transferability

Can your solution partly or fully be used in other education/learning contexts or disciplines? Could you provide any example?

Our solution can be applied beyond IT because in its very core is the logic of analyzing course materials, identifying skill gaps, and generating personalized tasks. That is domain agnostic and transferable across fields. The platform simply needs different reference materials and industry standards depending on the field. For example, in medicine, the system could compare university lectures with current clinical guidelines and propose case based diagnostic practice tasks. In engineering, it could bridge theory with real design tools and workflows, suggesting real life projects for well needed knowledge in actual workflows. Therefore, the solution can support any discipline where a gap exists between academic teaching, including its coursework and real world professional practice. Additionally, the number of available MCPs is growing day by day, which further expands the platform's interoperability — allowing it to seamlessly connect with an ever-increasing range of tools, platforms, and professional ecosystems across different fields.

## Sustainability

Once you have a prototype, what are your plans for a further development, implementation upscale and replication of the solution? How do you see it working in the mid- and long term?

Once we create the prototype, our first step is to test it with a small group of students to evaluate how well the platform detects skill gaps and recommends relevant learning tasks. Based on this feedback, we will refine the user experience and improve the knowledge graph and recommendation models. Afterwards, we plan to partner with universities, bootcamps, and internship programs to integrate the platform into existing courses and onboarding processes. In the mid-term, the platform would scale across multiple disciplines by adding additional industry skill frameworks. In the long term, we envision Gefira becoming a lifelong learning companion that continuously adapts to the changing job market and supports users beyond graduation in their professional development.

## Team work

Present the members of your team.

Why are you the perfect team to develop this work and what are the competencies you all bring in so the solution is developed successfully? What is your expertise within the thematic field concerned? Are you planning to continue working as a team in the future? If so, why?

Hi! Our names are Marko Sladojević, Vukan Radojević, Miloš Jovanović, and Relja Brdar. We make up a team driven by both technical expertise and a shared vision to improve how education connects with the real world.

We have extensive experience in relevant technologies, ranging from system AI integration, MCPs, system design, to various web technologies and etc.

Beyond our technical skills, we're united by curiosity, creativity, and a genuine drive to make digital learning smarter and more personal. We plan to continue working together in the future - not just because our skills fit perfectly, but because our friendship and natural and enjoyable collaboration.