



AI-SW-Hackathon 4.12.2023 Tampere

10-11

Opening &
Assignments

16-18

Presentations &
Evaluations

18-19

Winner declaration



twinverse



SOFTLANDIA YOKOT.AI

Agenda

- 09.30 – 10.00: Coffee & Tea and Networking
- 10.00 – 11.00: Challenges and Teams and Assignments
- 11.00 – 16.00: Demo & Presentation creation
- 15.30 – 16.00: Coffee & Tea and Team setups
- 16.00 – 18.00: Demos & Presentations & Evaluations
- 18.00 – 19.00: Winner declaration and Networking

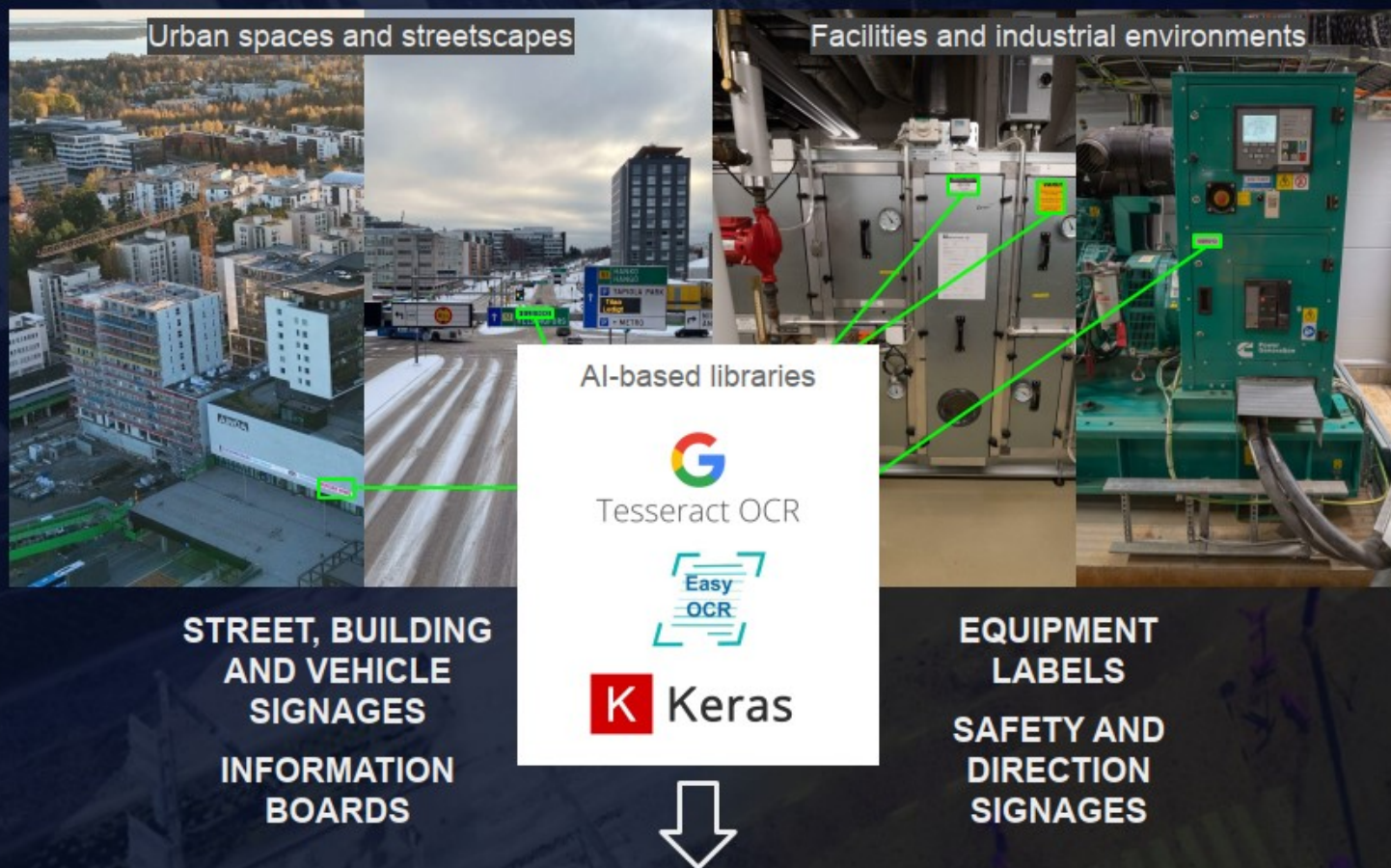
Teams: It's time to finish and deliver your presentation

Challenges (and their pitches)

- Challenge A
 - AI Scene Text Analyzer -- Twinverse / Arttu Julin
- Challenge B
 - AI generated News -- Satakunnan Viikko & Fiilaamo / Samu Vahteristo
- Challenge C
 - Virtual Ark for species by AI agents -- The Evangelical Lutheran Church of Finland / Stiven Naatus
- Challenge D
 - Household energy profiling -- SEIntS research group / Janne Harjamäki

AI Scene Text Analyzer

Explore the possibilities of AI-based text extraction to understand real-world scenes



Use Cases?

Urban planning, infrastructure management, emergency response, automated documentation...

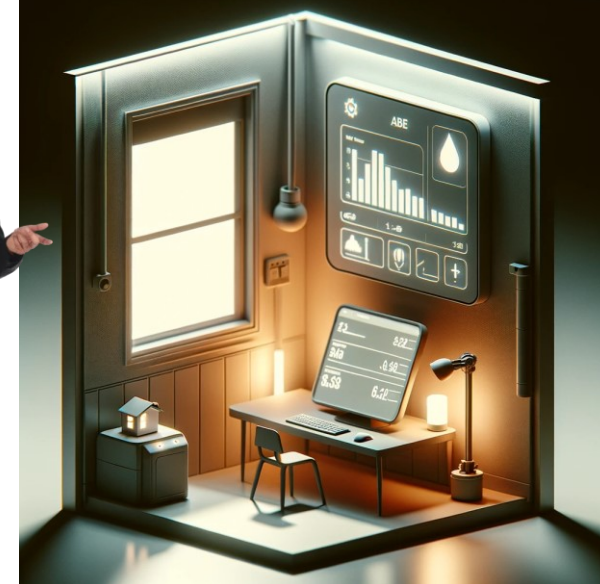
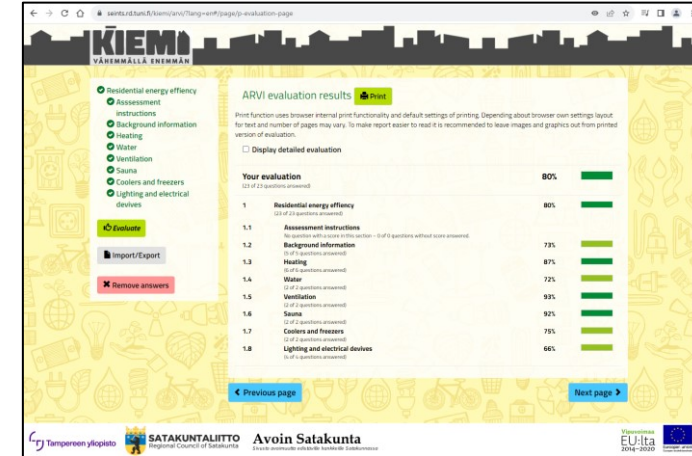
Outline of the challenge

- 1) AI library Implementation with diverse image dataset
- 2) Data output investigation
- 3) Functionality evaluation
- 4) Results wrap-up

Challenge D: Household energy profiling

Backgrounds for challenge

- SEIntS and energy efficiency in buildings
- Flexibility in energy consumption
- Spot electricity for household customers
- AI solution for household profiling about it's energy usage data and to generate tips to fine tune profile better



Coaches and support

- Coaches:
 - Challenge A: Bohdan Velychko
 - Challenge B: Kim Huovinlahti
 - Challenge C: Steven Naatus
 - Challenge D: Janne Harjamäki
- University representative:
Petri Rantanen
(Postdoctoral Research Fellow)
- Tool support:
 - YOKOT.AI: Mikko Lehtimäki
- Overall support:
 - Mika Saari
 - José Siqueira
 - Zeeshan Rasheed



TOOLS (tips)

- YOKOT.AI
 - Best RAG architecture in Finland? – Softlandia / Julia Bondarchik
- ChatGPT
 - Free version (3.5) available, requires account via student's own email
 - OpenAI-API (non-free) services available, but requires team to have/use their own account
- Google Bard
 - Possible API available via Python package? Basic version is free?

YOKOT.AI

Private & secure Generative AI solution for business use.

- Quickly validate use cases
- 24h deployment
- Chat with internal knowledge
- Generate documentation
- Automate workflows



Julia Bondarchick, MSc
Head of Product, AI Solutions

YOKOT.AI API

Private, secure, scalable, flat fee integration API utilizing Azure OpenAI & other models that have good performance.

- REST API ready to bring LLM capabilities to your solution
- Data security
- RAG (retrieval augmented generation)
- Hosted in Softlandia's or in your Azure environment

Use cases

- Integration to existing solutions
- RAG is built and optimized by Softlandia - you can focus on building new solutions on top of it

Softlandia expertise

Top notch GenAI & ML competence.

- LLM library expertise
- RAG, VectorDB, LLM methods
- Benchmarks
- Price /performance optimization
- Designing enterprise level solutions security, scalability



Mikko Lehtimäki, PhD
Founder, Chief Data Scientist

Hacking time..

- Make memos for your attempts, success and failures
- Create a solution or an application as a result
- Don't forget presentation, it's the most important element for your teams evaluation
 - Take audience into account, and make it easy to understand!
 - Keep it tight, you have only 10 minutes to impress us all

Teams and their Assignments

Team	Team names and members	Team's Assignment (Challenge)	Class (working space)
1	<i>Masood</i> : Masood Ahmadi, Jannaten Nayem	B	A07
2	<i>Laundry</i> : Long Nguyen, Thi Vu, Rui Liu	(withdrawal)	(withdrawal)
3	<i>Catbot</i> : Matti Linna, Andrew Barnett	B	A07
4	<i>Pythonic</i> : Muhammad Kamran, Bingxiang Chen, Saara Saaninkoski	D	A06
5	<i>Al Alchemists</i> : Chalih Haputhantrige, Nardos Estifanos	A	A07
6	<i>SIK</i> : Abdullah Mohammad Ashraf, Ayman Khan, Affira	A	A07
7	<i>Non-Duo</i> : Benke Hargitai, Rafin Akther Utshaw	C	A06
8	<i>Plantagen</i> : Roope Mantere, Vertti Nuotio	D	A06
9	NES: Eero Laine, Saurabh Chauhan	B	A07

Demo & Presentation creation phase starts..

- Let's give them some privacy to do their magic..
- Thank you for participating our event's first broadcast
- This stream will end at 11.15 (or 12.15 at latest)
- We'll be back at 16.00 with another broadcast stream
- Check your event page links again at 15.50



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Demos & Presentations & Evaluations

- Presentation and Questions
 - Short presentations (8-10 min)
 - Jury questions (max 5 min)

We'll show you
flags for last
minutes
(10-3-2-1-stop)

- Evaluation consist of following elements
 - 0-2 points for software content (documentation, technical solution)
 - 0-8 points for AI usage (creation, innovation) and clear presentation
 - 0-1 point for reached solution compared to given challenge
 - 0-1 *Superpoint* on Professor Abrahamsson's Impression
- ➔ For total score team can reach 0-12 points

10

3

2

1


stop


Teams and their Presentations

Team	Team names and members	Team's Presentation (Challenge)
5	<i>Al Alchemists</i> : Chalih Haputhantrige, Nardos Estifanos	A
6	<i>SIK</i> : Abdullah Mohammad Ashraf, Ayman Khan, Affira	A
1	<i>Masood</i> : Masood Ahmadi, Jannaten Nayem	B
3	<i>Catbot</i> : Matti Linna, Andrew Barnett	B
9	<i>NES</i> : Eero Laine, Saurabh Chauhan	B
7	<i>Non-Duo</i> : Benke Hargitai, Rafin Akther Utshaw	C
4	<i>Pythonic</i> : Muhammad Kamran, Bingxiang Chen, Saara Saaninkoski	D
8	<i>Plantagen</i> : Roope Mantere, Vertti Nuotio	D
2	<i>Laundry</i> : Long Nguyen, Thi Vu, Rui Liu	(withdrawal)

Optimal Presentation Order

December 4, 2023

 **Anonymous**
we have 4 challenges, A, B, C and D. Challenge A has 2 teams, challenge B has 3 teams, challenge c has 1 team, challenge d has 2 teams. Give an optimal order for presentations so that each challenge is presented in order

 **ChatGPT**
To determine an optimal order for the presentations, we need to consider a few factors:

- Each challenge (A, B, C, and D) should be presented in order.
- We want to minimize the waiting time for teams, especially those involved in multiple challenges.
- We need to account for the number of teams in each challenge.

Given that Challenge A has 2 teams, B has 3 teams, C has 1 team, and D has 2 teams, we can arrange the presentations in the following order:

- Start with Challenge A, since it's the first in order. Present both teams from Challenge A.
- Move on to Challenge B. Present all three teams from Challenge B.
- Proceed to Challenge C. Present the only team from Challenge C.
- Finally, present the two teams from Challenge D.

This order ensures that each challenge is presented in sequence (A, B, C, D) and allows for a smooth transition between challenges without unnecessary delays.

However, if there are teams participating in multiple challenges, it would be helpful to know that in order to further optimize the schedule. For example, if a team is in both Challenge A and Challenge B, you might want to schedule their presentations in B immediately after A to reduce their waiting time.

Presentations from teams...

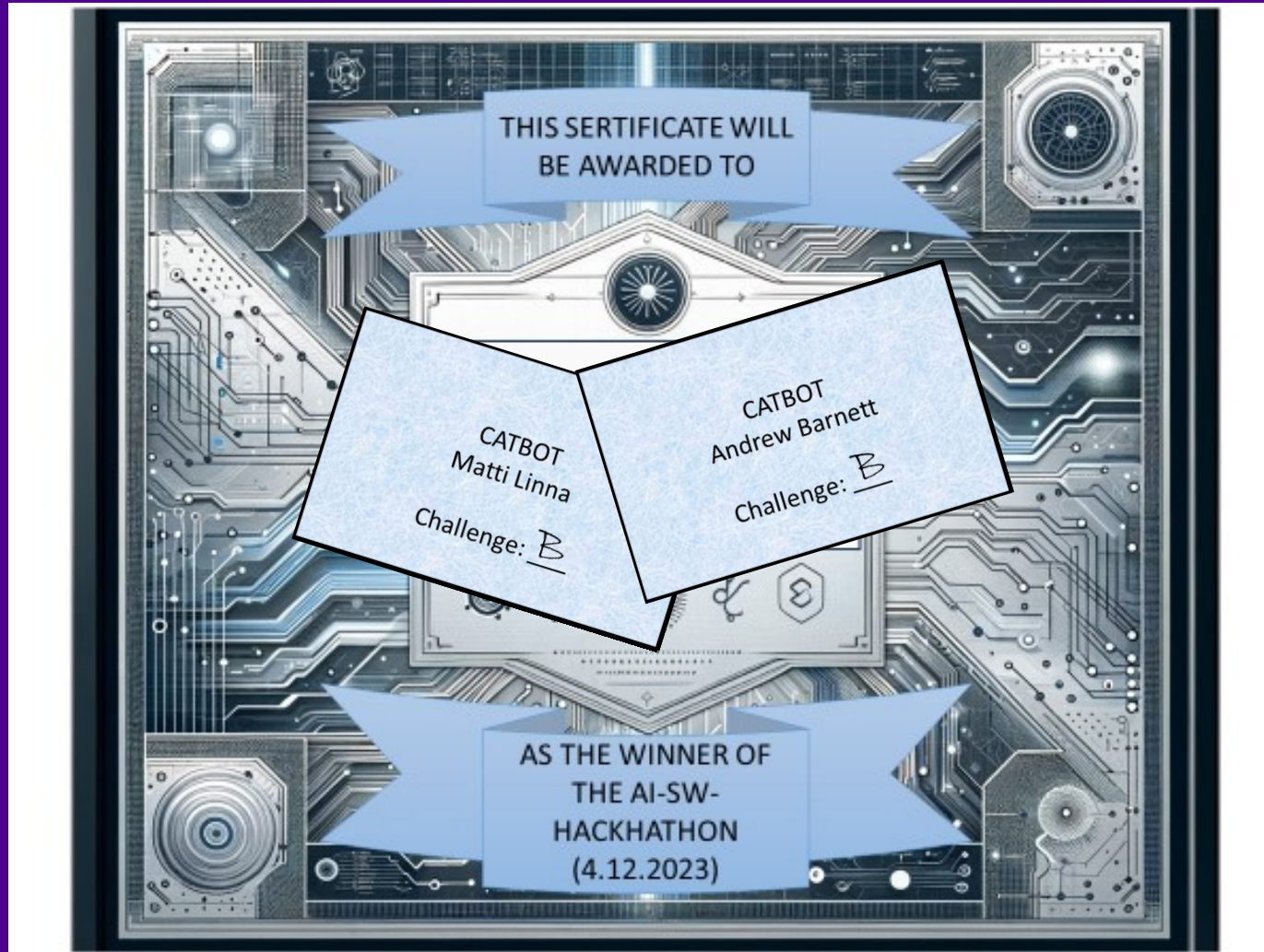
Jury's evaluation forms and scoreboards

- Evaluation consist of following elements
 - 0-2 points for software content (documentation, technical solution)
 - 0-8 points for AI usage (creation, innovation) and clear presentation
 - 0-1 point for reached solution compared to given challenge
 - 0-1 *Superpoint* on Professor Abrahamsson's Impression
- ➔ For total score team can reach 0-12 points

Teams and their score points

Team	Team names and members	Team's (Challenge)	Score Points
1	<i>Masood</i> : Masood Ahmadi, Jannaten Nayem	B	5,5
2	<i>Laundry</i> : Long Nguyen, Thi Vu, Rui Liu	(withdrawal)	-
3	<i>Catbot</i> : Matti Linna, Andrew Barnett	B	9,5
4	<i>Pythonic</i> : Muhammad Kamran, Bingxiang Chen, Saara Saaninkoski	D	8,25
5	<i>AI Alchemists</i> : Chalih Haputhantrige, Nardos Estifanos	A	5,5
6	<i>SIK</i> : Abdullah Mohammad Ashraf, Ayman Khan, Affira	A	6
7	<i>Non-Duo</i> : Benke Hargitai, Rafin Akther Utshaw	C	6,25
8	<i>Plantagen</i> : Roope Mantere, Vertti Nuotio	D	5,25
9	NES: Eero Laine, Saurabh Chauhan	B	6,75

Hackathon event Winner !



Thank you for participating in our event !

We would also like to thank the companies and organizations that participated in the event.
With their help, we got so much better at the content.



Satakunnan Viikko &
Fiilamo

Evangelical
Lutheran Church of
Finland

