Challenge4Impact

SUPPORT SERVICES FOR STUDENT-BUSINESS COLLABORATION

Good practice collection of support services for challenge-based student-business collaboration in sustainable entrepreneurship

Good Practice Profile: Fruitpunch AI

FRUITPUNCH AI

Fruitpunch.ai BV
Challenge-based AI education platform

Est. 2020
Netherlands
Eindhoven

Number of employees
7

Geographic scope of activities
International

Type of intermediary
☐ HEI-external
☐ HEI-internal
☒ Hybrid

Intermediary set-up
☒ Single organisation
☐ Partnership of multiple organisations

Intermediation for SBC as
☒ Primary role
☐ Secondary role

FruitPunch AI is a challenge-based platform that provides learners with education on ethical and sustainable application of AI and enables them to put their new knowledge into real-world practice by working on challenges with partner companies. Ultimately, FruitPunch AI wants to build a **global "AI for Good" community**.

📄 Background

FruitPunch AI is a spin-out of the Eindhoven AI Systems Institute (EAISI) at Eindhoven University of Technology (TU/e). During his studies at TU/e, FruitPunch AI founder Buster Franken was looking for a community to learn more about the application of AI, but did not find a suitable environment to do so. He made use of the university's offer to create a TU/e Student Team as an interdisciplinary organisation of students that challenge themselves to tackle societal challenges by developing innovative technologies together with TU/e Institutes and external partners. Together with other students, Buster Franken developed the FruitPunch AI concept which combines the training of AI engineers with challenge-based education. The student team was supported by the Data Science Center Eindhoven (DSC/e) and IBM. After launching a call to action for applying AI to solve problems relating to the SDGs, and upon a response from the wild reserves of South Africa, the FruitPunch AI team explored the use of AI to fight poaching, together with 50 AI engineers from around the world. The result was an autonomous drone with thermal cameras for detection of poachers that was developed in collaboration with rangers. This marked the first AI for Good Challenge (AI for Wildlife). Other AI for Good Challenges have been developed since, working on topics ranging from automated detection of Covid, saving of coral reefs and detection of wildfires and illegal deforestation.

💰 Funding & Financing Model

× Revenue is generated through fees for providing the following programmes:

  ° Challenge-based Learning Programme: Both monthly and per challenge fees for onboarding and mentoring of engineers and students throughout FruitPunch AI challenges and certification for gained skills.

  ° Challenge Programme: Fixed operational fees for setting up 10-week AI for Good Challenges based on data of target organisations who benefit from the results of the challenge.

× In 2021, FruitPunch AI was selected as one of five start-ups to receive an investment of € 500,000 by Netherlands-based impact investor LUMO Labs to further develop its platform features, hire strategic roles, and turn pilot programmes into sustainable partnerships.

× In 2023, VC investor Shamrock Ventures led an investment of further € 500,000, together with LUMO Labs and various business angel investors.

Intermediary Support Services & Activities

GENERAL SUPPORT

- Development and coordination of the FruitPunch AI platform which provides education and real-world AI application in 10-week challenges, including kick-off and mid-term and final presentations.

- Matching of talent from the FruitPunch AI learners' community to partner companies through identification of skill-need fit based on learner participation in challenge formats.

- Coordination of thematic AI Labs to build several communities of AI engineers with a partner ecosystem around a specific topic and technology, such as the AI for Wildlife Lab, AI for Earth Lab, and AI for Health Lab. The labs combine the experience from all challenges, turning them into resources for machine learning projects available to all lab members and partners.

- Setting up and building of challenge teams via a crowd-sourcing approach based on platform skills assessment. On average, 15 to 50 people are recruited for participation in AI challenges. They are assigned various roles, including (student) engineer, project manager, work group coordinators, experts, event organisers, and storytellers.

- Empowerment of community members to self-organise challenges.

TEACHER- AND STUDENT-SPECIFIC SUPPORT

- Free participation in challenges as individual learner or as a student linked to a university that has entered a partner-ship with FruitPunch AI. On average, learners invest 8-12 hours per week during the AI challenge.

- Provision of AI for Good learning journeys on the Fruit-Punch AI platform, including access to free AI education such as masterclasses, bootcamps, coding sessions, and tutorials for a community of global learners, including but not limited to university students.

- Students can create individual learner profiles which keep track of learning goals, areas of interest and interest in particular SDGs. Based on interests, learners join corresponding communities. An incorporated skills tree tool provides detailed insights into hard and soft skills acquired during challenges. The skills assessment function enables matching with organisations, for example via an integrated career page.

- Provision of accreditation with badges for specific skills acquired as well as certification after challenge completion.

- Partnerships with universities to further students' applied AI skills.

COMPANY-SPECIFIC SUPPORT

- Support in defining deliverables for the challenge programme based on the problems experienced by the organisation and available data.

- 6-8 weeks prior to challenge launch, recruitment of talent for participation in the company partner's AI challenge via marketing and community channels and selection of suitable participants from the pool of applicants.

- Next to provision of corporate education for upskilling and retaining current talent, FruitPunch AI provides a matching service to help companies find new AI talent through its challenge programmes, aided by a dedicated career page and peer-reviewed skills assessment function on the platform.

- Contribution to visibility of companies through communication and press activities.

Curricular Integration

In addition to its own projects, FruitPunch AI has developed a primary focus on education. As part of its educational offer, it engages in university partnerships to create tailored AI challenge programmes that employ CBL and enable co-creation of solutions by students and businesses.

International & Virtual Collaboration

✕ The FruitPunch AI gamified platform is open to students, engineers and lifelong learners worldwide, facilitating international collaboration in AI. The platform facilitates a productive exchange of AI expertise of up to 50 international AI engineers and students per challenge.

✕ FruitPunch AI maintains the four chapters in Eindhoven (Netherlands), South Africa, India, and Uganda, which are associated to universities via maintenance through students. FruitPunch AI is expanding its international network and setting up new collaborations, e.g. through student ambassadors in Finland.

✕ The independent FruitPunch AI for Health Eindhoven Chapter, operated by a TU/e Student Team, aims to expand into a worldwide community of city-chapters that tackles wellbeing challenges.

FruitPunch AI CEO Buster Franken (left) and CTO Sako Arts © Nathalie Duin
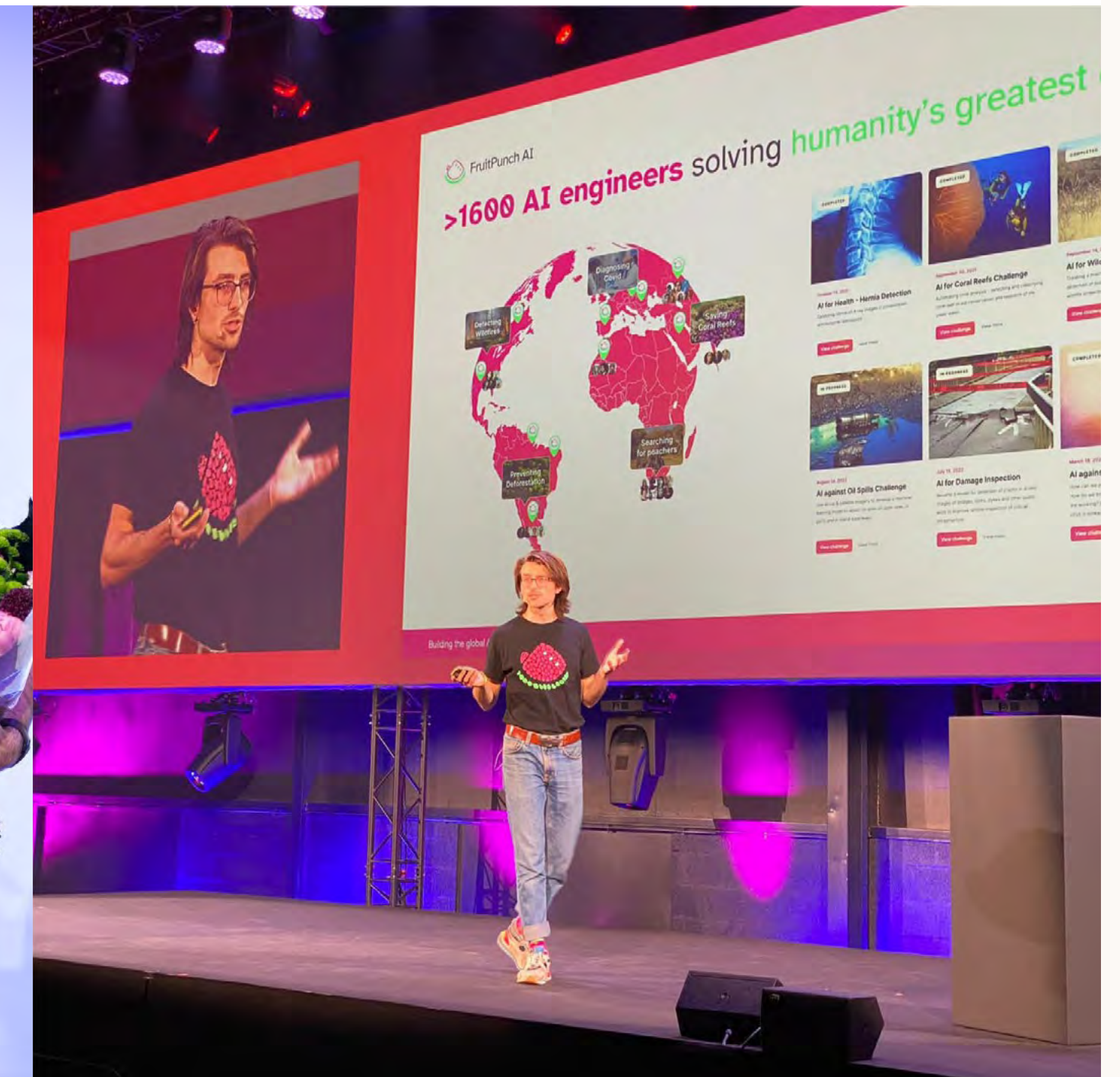
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Impact

VISION & MISSION STATEMENT

The vision of FruitPunch AI is to create meaningful work, **combining applied AI education and real-world impact**. It is on a mission to build and educate a worldwide community of AI for Good engineers that will contribute to reaching the SDGs through application of tech solutions.
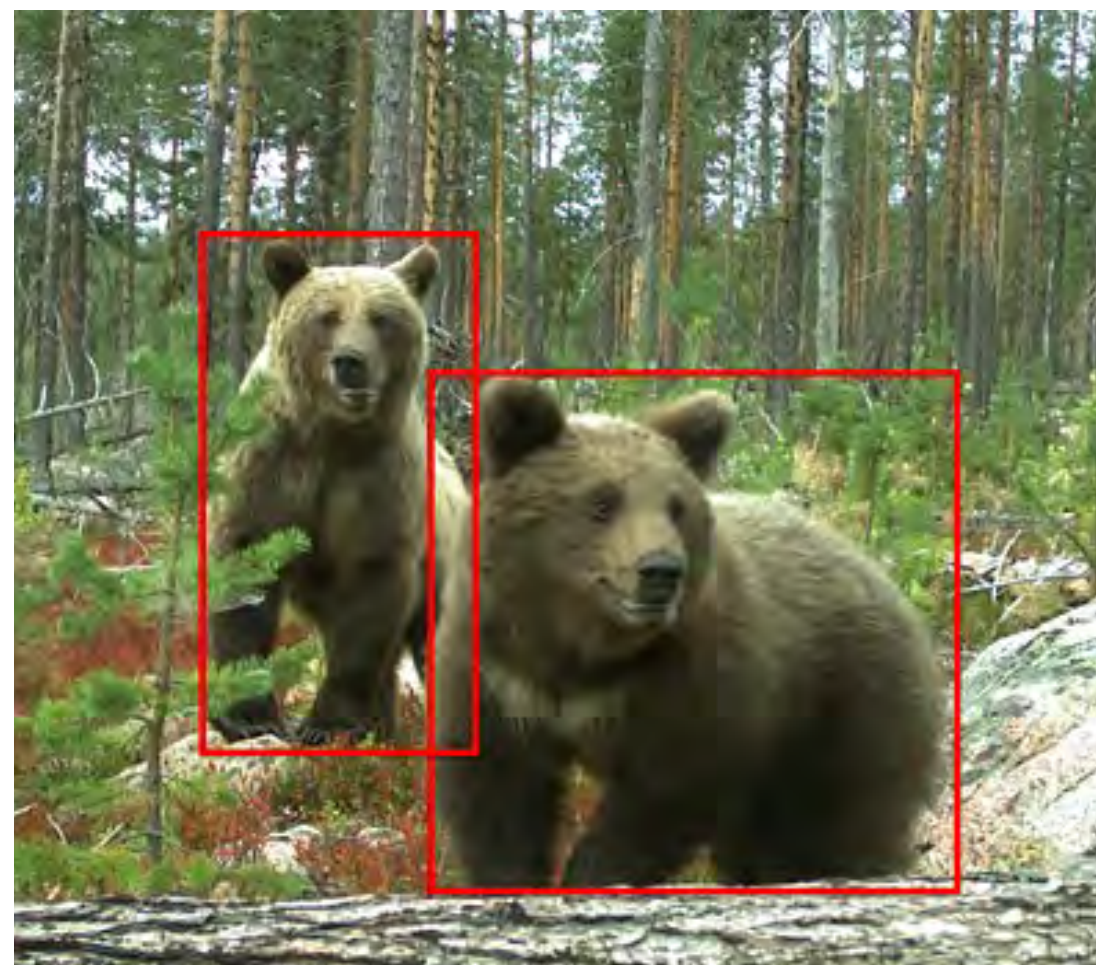
RESULTS

× More than 26 challenges have been carried out on the FruitPunch AI platform.

× More than 3000 AI engineers are part of the FruitPunch AI community.

× More than 80 partners collaborate with FruitPunch AI to develop the Global AI for Good community, for example through providing machine learning focused educational events.

SUCCESS FACTORS AND ENABLING CONDITIONS

× FruitPunch AI has further developed its platform offer and services over the years, setting up educational content for different levels of education, including secondary and higher education.

× Visibility through creation and organisation of flagship events such as the FruitPunch AI Connect conference.

× Established collaborations with recognised NGOs, impact start-ups & research centres like Stanford University, World Wide Fund for Nature (WWF) and NXP Semiconductors.

× Strong support provided by TU/e in incubating and accelerating FruitPunch AI has shaped its success and growth. FruitPunch AI maintains its university connection through its location at the High Tech Campus Eindhoven, a R&D ecosystem of 300 companies, launched by Philips.

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⬡ Exemplary Challenge Format: **Startup Scalability Challenge 2022**

✕ The AI for European Wildlife Challenge ran from 25 April to 4 July 2023 in the context of FruitPunch AI's AI for Wildlife Lab. Challenge research partner was SLU Swedish University of Agricultural Sciences. Rewilding Europe, WWF Spain, and Huawei supported the challenge with its expertise and resources as a contributing partner. For instance, Rewilding provided datasets containing over 378,000 camera trap images.

✕ The overall context of the challenge was to further effective wildlife conservation measures through monitoring of population dynamics of ecosystems. The specific AI challenge was to build computer vision models to help identify species of European wildlife on camera trap images and improve population monitoring. For SLU researchers, the results were of high relevance as they use camera traps for population monitoring, but identification of species had only been carried out manually.

✕ Prerequisites for participation were backgrounds in data science or ecology, with basic knowledge of Python programming and machine learning.

✕ FruitPunch AI enabled the delivery of two masterclasses that provided insights into ecological issues and how computer vision can support conservation efforts. Participants were divided into teams, one team exploring various AI models, and the other team constructing the machine learning pipeline.

RESULTS

All results including reports are open access, made available on the FruitPunch AI platform: AI for European Wildlife Challenge: Solving automated wildlife taxonomy with AI.

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PUBLIC CONTACT DETAILS
Buster Franken
CEO and Co-Founder, FruitPunch AI
contact@fruitpunch.ai

INFORMATION SOURCES
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