Vainu Widget
Project Proposal

Introduction
Vainu is one of Europe’s fastest growing startups (Talouselämä, WIRED magazine) and one of the world’s biggest company database containing data of 120 million companies. The data is extracted from both, official structured company databases and from unstructured open data sources, like news sites (our AI reads 1.5 million news each day). Currently, the data is only available for licensed Vainu users and to access the data the user needs to login to the web app.

However, many people would benefit from company data in very different contexts than in Vainu app, e.g. when reading emails or daily news. It would just have to be served timely, wisely and automatically.

In this project you will build a widget (Chrome Extension) that’ll automatically recognize the companies with Vainu’s neural network (NER) from the currently visible website and inject essential company data right where the user needs it. A typical use case would be that a user is reading an interesting piece of news talking about some company and the widget provides valuable background information about it. Using the widget doesn’t require a paid Vainu license but it does require registration.

The end users will be business people (business-to-business salespersons as one main group) who need to check company backgrounds quickly and share information about relevant company events.

Project Goals
Goal is to create a system that...

1) provides the user with relevant company information whenever there’s a company mentioned on the open website
2) provides Vainu (the company) with the emails of users who are in need of company data

Level 1 – Minimum viable product:
A Chrome Extension that...

- Provides a simple freemium registration (with valid email) on start...
- Sends the registration email to Vainu’s API for marketing purposes...
- When the user is registered (widget is enabled), the widget scrapes the textual content of any opened website...
- Sends the unstructured textual data to Vainu’s Named Entity Recognition (NER) API that’ll return the recognized company names with their essential company data (e.g. revenue, staff number, website...)
- Injects the returned data into the website, to the correct place...
- Shows a nice-looking pop-up with essential facts on mouse hover over company name.

Level 2 – Sharing the data
- The pop-up fact sheet provides a “Share” button → possibility to send the essential company information and the URL to the page easily to anyone via email (or via Slack etc.).
- Whenever something gets shared, the data is also sent to Vainu’s API endpoint → provides extensions to Vainu’s current information source pool.

Level 3 – Building/training the AI
- Building an AI with the help of Vainu Lab’s AI team. This AI learns the website structures and knows what text is relevant (e.g. doesn’t read or tag company names in ads).
Level 4 – Publishing the widget
• Publish the widget in Chrome Web Store.

Technologies
Team has the freedom in choosing the programming languages and frameworks. Vainu has expertise to support Python, TensorFlow, Docker, Kubernetes, AWS, MongoDB, Google Cloud and React development.

The widget can be developed by using common web development technologies: HTML, CSS, JavaScript.

See more here: https://developer.chrome.com/extensions/getstarted

Requirements for the students
All the basic skills required to complete the project are learnable during the project if one has a basic understanding of web development (HTML, CSS) and programming (e.g. JavaScript). More challenging part (not included in the minimum viable product) requires understanding or motivation to get familiar with Machine Learning and AI models.

The difficulty of the topic is expected to be moderate but for the people keen on more challenges we offer a possibility to improve the project with AI and work alongside Vainu Lab’s AI team.

Legal Issues
Intellectual Property Rights (IPR): The client gets all IPRs to the results. Non-disclosure agreement (NDA): Signing the NDA included in the Aalto’s contract template is required.

The end result will be an open widget so it is possible to use it as a showcase in your CV / portfolio.

Client – Vainu
Vainu is a Finnish startup whose mission is to create the most comprehensive company database in the world. This is done by acquiring the official company databases and enriching the basic dataset with whatever can be found from open data. On top of this, Vainu applies artificial intelligence in order to predict the future behaviour and needs of companies. In practise this means that Vainu AI is able to find the companies who want to buy whatever you’re selling. Supply and demand meet more efficiently, and everyone saves time and money.

Vainu has grown rapidly from three-person Helsinki-based company in 2015 to an international growth company with 170 employees of which 40 in product development (software). It has been selected as one of the top European startups (by Talouselämä, WIRED magazine) for two years in a row and it won the Best Bootstrapped category in Nordic Startup Awards 2017. Vainu Labs, a technology-driven brand focused on data analysis and artificial intelligence was launched in August 2018.

Vainu is prepared to spend 4-8 hours per week on guiding your team. Your team may also work weekly at Vainu’s product development premises at Kallio (the hours are to be agreed with the representative).

Client representative(s): Antti Lehtimäki – Head of Tech Operations
antti@vainu.io +358 44 235 5976
Kaikukatu 2 C, Helsinki (4th floor)

Preselected Student Team Member(s): Riko Nyberg - Head of AI at Vainu Labs
rikonyberg.com
Scrum Master in the project