Samu Syrjänen | University of Helsinki / Aalto University

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Website | **Linkedin**
Location: International

My Field:
Data Science/Engineering
Machine Learning
Software Engineering

Languages:
English (CEFR C1)
Finnish (Native)

About Me

Hi, I study Data Science and Computer Science at the University of Helsinki. I'm most interested in the latest technological innovations and I specialize in Data-related areas such as Data Engineering, Big Data, Data Science, Machine Learning, and data-related Software Engineering.

I have experience from many Machine Learning, Data Science, and Software Engineering projects, and I'd love to work as part of a dedicated team. My professional career has started as a Research Assistant at the University of Helsinki and Aalto University, which have been beneficial in terms of my studies and gaining work experience. I plan on continuing my current path, developing sought-after Data skills that will allow me to work on interesting projects in the future.

Career

Dec 2024 - Current
Research Assistant – *Aalto University*
As part of ESA's Hera space mission, I'm responsible for creating a pipeline to process and archive the data from Hera space probe's Aspect Hyperspectral Imager. The processed data is then used to make a 3D reconstruction of the target asteroid Dimorphos.

Sep 2023 - Current (Expected Late 2025)
Master's Degree in Data Science – *University of Helsinki* | **Transcript of Records**

May 2024 - Aug 2024
Research Assistant – *University of Helsinki* | **Certificate**
I created a Gaussian Process ML algorithm for the estimation of asteroid surface age, based on their reflectance spectra. I conducted a comprehensive study in order to select the most optimal model structure, which consists of a Convolutional Neural Network (CNN) based Feature Extractor, and Hadamard Multitask Regression which are built on top of the base GP model. **Project Github...**

I'm proud of the results I was able to achieve, as my model was able to compete with a separately developed Ensemble model that utilizes CNNs. This project is a good demonstration of my tenacity and ability to work on a new project even on my own.

Sep 2019 - Dec 2023
Bachelor's Degree in Computer Science – *University of Helsinki*

Skills

- Python
- SQL
- Many Kinds of ML Algorithms Including Convolutional Neural Networks (CNN)

- Hyperparameter Optimization
- Data Pipelines
- PyTorch
- JavaScript
- Data Analysis

- Scrum and Agile Development
- Software Architectures
- Automatic Testing
- Github
- OpenCV

Projects

[Team] [ML] Building Façade Recognition | **Project Report**

- I implemented a Local Binary Pattern (LBP) algorithm for building texture recognition, combining it with the rest of the algorithm.
- Actively communicated with the customer company to better understand their needs.
- Did my best to manage our team's efforts and enhance collaboration.

My other projects include:
1. [ML] Gaussian Process Model
2. [Team] [Agile] Mobile App Development
3. [SQL] Database Project: Forum Website
4. [Team] [ML] Exploratory ML Project
5. [ML] K-Means Clustering for Text Data

   See Website…

My Website

https://samusyrjanen.github.io/CV_Samu_Syrjanen/