Samu Syrjänen | University of Helsinki / Aalto University

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My Website
Location: International

My Field:
Data Science
Data Engineering
Data Analysis
Machine Learning

Languages:
English (CEFR C1)
Finnish (Native)
Japanese (Beginner)

About Me

I'm a Data Science Master's student at the University of Helsinki, and research assistant at Aalto University. I'm looking for long-term work opportunities to gain more experience in the field and develop more specialized knowledge and skills.

My background is in Computer Science, Machine Learning, Data Engineering, and Data Analysis. Future career interests include working with data pipelines, analytics, cloud platforms, and machine learning algorithms to provide solutions and answers for product development, marketing, and other business intelligence problems. Besides the more technical roles, I'm also interested in ways to support businesses and product development from a business administration perspective where a more tech-heavy background can be beneficial.

Skills

- Python
- SQL
- Many Kinds of ML Algorithms, Including Convolutional Neural Networks
- Spark
- ETL/ELT Pipelines
- PyTorch
- PowerBI
- Kafka
- AWS
- Databricks
- Quality Assurance/Testing
- Software Architectures
- Scrum and Agile Development

Career

Dec 2024 - Current
Research Assistant - *Aalto University*
As part of Jaan Praks research group at Aalto University and ESA's Hera space mission, I'm responsible for creating a pipeline to **clean**, **calibrate**, and **process** data that will be received from the ASPECT Hyperspectral Imager on the Hera/Milani space probe. The work entails plenty of **Data Analysis** and cross-national coordination between teams working on this project. The data is analyzed with a **Convolutional Neural Network** algorithm, and will ultimately be used to gain insights into the mineral composition of the target Didymos binary asteroid system and to make a 3D model containing all related information.

Sep 2023 - Current (Expected Early 2026)
Master's Degree in Data Science - *University of Helsinki* | Transcript of Records

May 2024 - Aug 2024
Research Assistant - *University of Helsinki* | Certificate
As part of this space weathering research project, I created a **Convolutional Neural Network** enhanced **Gaussian Process** algorithm for estimating asteroid surface age. The algorithm uses asteroid hyperspectral reflectance spectra to give an age estimate. It stands out as a surprisingly flexible algorithm to predict outcomes even with a sparse training set, as in our case.
Github Repository...

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

My Master's Thesis (Not finished yet)

Building Scalable Data Streaming Pipelines in Cloud Environment

The thesis aims to explore some different ways to build data streaming pipelines in the cloud. I develop an end-to-end streaming pipeline that uses real-time stock market data and derives analytics from it. The data is ingested with **Kafka**, processed with **Spark**/**Databricks**, and visualized with **PowerBI**. All services are built on scalable cloud compute that is able to handle massive volumes of data.

My other projects/products include:

1. [Collab] [ML] Building Façade Recognition
2. [Collab] [Agile] Mobile App Development
3. [SQL] Database Project: Forum Website
4. [Collab] [ML] Exploratory ML Project
5. [ML] K-Means Clustering for Text Data

See my website for details...

My Website

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