Oskar Åsbrink

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https://github.com/oskarasbrink
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For my personal portfolio & digital CV with links to all repositories, feel free to visit my webpage through this link.

Work experience

Data Engineering Master's Thesis, Sensmetry UAB, 2023-01 — Present
An. Writing a library in Scala for Historical Updates of already transformed data, much like in Incremental Computing (IC) and Self-Adjusting Computing (SAC), but with a Big-Data twist. Requires familiarity with streaming & messaging services, Query Engines and general setup of Data Engineering Architectures. Thesis work includes participation in daily work for the whole project team, and then releasing this library as open-source once the thesis is done.

Data Science Engineering Intern, Combient Mix, Combient Competence Centre UU, 2022-07 — 2022-08
An internship with deliverables mixed in with learning. My main task was further developing and packaging of collected work relating to an AutoGrader for notebooks in Jupyter and Databricks format. I also gathered experience in Github Actions, Bash and docker-compose, and spend time for self study reading on Spark.

General JSON Notebook AutoGrader, 2022-07 — present
My work is based on adding functionalities, bugfixes, cleaning and restructuring code from two repositories into the complete AutoGrader package that both manages notebook related code and the AutoGrader itself. This work was presented to Databricks University Alliance in hopes of future collaboration.

Education

MSc in Data Science, Uppsala University, 2021-08 — 2023-06
A two year degree in Data Science with a focus on Data Engineering, Machine-Learning and Statistics. Courses include Data Engineering, Advanced Probabilistic Machine Learning, Theoretical foundations of Data Science, Data mining, Reinforcement Learning and guest participation in a Phd-level course in Scaleable Distributed Machine Learning called ScaDaMaLe.

BSc in Computer Science, Uppsala University, 2019-08 — 2021-06
Mathematics, Computer architecture, Functional programming, Machine Learning,Databases, Algorithms and Software Testing. My bachelors thesis was on Reinforcement Learning of musculoskeletal control in OpenSim models.

Computer Engineering, Linköpings universitet, 2018-08 — 2019-06
First year focused on OOP in C++, Calculus, Linear Algebra, Assembly programming with microprocessors and basics of hardware and logic. I relocated to Uppsala after the first year.

Projects & contributions

For more elaborate descriptions of projects & contributions with links to all repositories, again see my webpage.

Contribution to automate generation of ScaDaMaLe course material through Github Actions
A Phd-level course in Scalable Distributed Machine Learning at Uppsala University, currently held for the Wallenberg AI, Autonomous Systems and Software Program.
I contributed with automated generation of markdown books with Github Actions that combines notebooks in Databricks format into a combined scrollable MDBook. I also helped set up the Notebook AutoGrader used for course assignments.

Football Odds Predictor
A project with two friends that predicts football odds with Machine Learning. The model is intended to be trained using data from Allsvenskan-league, to then be applied to lower level leagues where betting companies don't put in as much effort.

Full time Data Science project at Trase.earth 2022-09 — 2023-01
The work consists of implementing a system for data management and aiding in preprocessing. The project also includes analysis and predictions related to commodity transfers to temporary supply sheds, and tracking movement of cattle in the process from birth to slaughter to help meat processing plants trace which cattle are tied to recently deforested areas.

Skills:
Python
C++
Apache Spark
Github Actions
Docker & Docker-compose
Pandas
Software Testing
Neural Networks in Keras
Assembly programming
Machine Learning in SKlearn

For further information feel free to contact:

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