VIKTOR CSOMOR

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SUMMARY

Applied scientist with an engineering background. Experienced in the use of statistical analysis to drive decisions and well-versed in the development of novel machine learning solutions. Skilled in parallel computing ranging from the utilisation of instruction-level parallelism to multithreading and distributed multiprocessing.

WORK EXPERIENCE

Jan 2022 – present: Applied Scientist – **Amazon, Edinburgh**

Nov 2020 – Dec 2021: Software Development Engineer – **Amazon, Edinburgh**

Sep 2018 – Oct 2020: Software Engineer (Machine Learning) – **Skyscanner, Edinburgh**
Led the development of a machine learning pipeline for the prediction of flight searches on Skyscanner using PySpark, pandas, and scikit-learn.

Contributed to the development of a large-scale batch job and backend application for the collection, aggregation, and evaluation of a business metric of strategic importance using distributed computing technologies such as Java Spark and the AWS ecosystem.

Worked on ad hoc data analysis and various Spark batch jobs processing and generating data necessary for the day-to-day operation of important back end services.

Apr 2017 – July 2018: Software Engineer (Build and Configuration) – **Allianz Technology, Vienna**
Developed and maintained plug-ins for an Eclipse IDE to support remote development on a Linux host environment and refactored large portions of the old codebase greatly improving code quality.

Developed both the Java backend and the Angular web frontend prototype of a build report system successfully adopted by developers and build managers company wide.

Implemented a RESTful Java web service backed by a native process pool for the execution of external DB2 stored procedures significantly increasing scalability and reducing response times.

Sep 2016 – Mar 2017: Software Development Intern – **Allianz Technology, Vienna**
Implemented a secure interactive shell command executor for remote Linux machines, developed Eclipse plug-ins, and provided support and troubleshooting for users of the plug-ins.

PERSONAL PROJECTS

PararealML: A parallel-in-time differential equation solver framework accelerated by machine learning.

PP4J: A multiprocessing library for Java that features process pool implementations and a flexible API.

C-ATTL3: A C++ deep learning library for the construction and optimization of neural networks ranging from simple feedforward architectures to state-of-the-art convolutional ResNets and LSTMs.

OSML: A Python library of machine learning algorithms ranging from logistic regression and weighted k-nearest neighbours to naïve Bayes models, support vector machines, and random forests.

DETROID: A Java chess framework featuring a Universal Chess Interface adapter, a JavaFX GUI, parameter optimization support, and a principal variation search driven chess engine.

SKILLS

Python: NumPy, SciPy, pandas, PySpark, mpi4py, scikit-learn, Keras/Tensorflow, Matplotlib, Pytest, unittest, PyCharm

C/C++: STL, OpenMP, MPI, CUDA, CuBLAS, CDNN, Eigen, CUnit, Google Test, GCC, Clang, GNU Make, Doxygen, Eclipse CDT

Java: JAX-RS, JPA, JDBC, JNI, Spark, JUnit, Mockito, Maven, Eclipse, IntelliJ IDEA

Others: SQL, GNU Bash, Git, AWS, Travis CI, SonarQube, JIRA, LaTeX, Linux, Windows, MacOS

EDUCATION

2019 – 2020: The University of Edinburgh – **High Performance Computing with Data Science, MSc**

2014 – 2017: University of Applied Sciences Technikum Wien – **Business Informatics, BSc**