VIKTOR CSOMOR

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SUMMARY

Software engineer with strong software design and development skills and a specialisation in data science and parallel computing. Experienced in the use of statistical analysis to drive decisions and well-versed in the application of machine learning in production systems. Skilled in parallel programming on all levels ranging from the utilisation of instruction-level parallelism to multithreading and distributed multiprocessing. Proficient in Java, C/C++, and Python.

WORK EXPERIENCE

Sep 2018 – present: Software Engineer (Machine Learning) – **Skyscanner, Edinburgh**
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.

Led the development of a machine learning pipeline for the prediction of flight searches on Skyscanner using PySpark, pandas, and scikit-learn.

Currently focused 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 – **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

Java: Oracle Certified, JAX-RS, JPA, JDBC, JNI, Spark, JavaFX, SWT, Guice, JUnit, Mockito, Maven, Eclipse, IntelliJ IDEA

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

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

Others: UML, SQL, GNU Bash, Git, AWS, Travis CI, Drone, 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**

LANGUAGES

English: Full professional proficiency (**IELTS Academic 8.5**)

German: Elementary proficiency

Hungarian: Native proficiency