

# VIKTOR CSOMOR

Edinburgh, UK | viktor.csomor@gmail.com | [viktorc.net](http://viktorc.net)

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## SUMMARY

Software engineer with strong software design and development skills and an expertise in artificial intelligence and parallel computing. Experienced in the use of data science 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.

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## WORK EXPERIENCE

### Sep 2018 – present: Software Engineer (Machine Learning) - Skyscanner, Edinburgh

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

Currently leading the development of a complex machine learning pipeline dealing with massive amounts of data for the prediction of flight searches on Skyscanner using PySpark, pandas, and scikit-learn.

### 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.

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## PERSONAL PROJECTS

**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.

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## 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, scikit-learn, Keras, Matplotlib, Pytest, unittest, Invoke, PyCharm

**Others:** UML, SQL, GNU Bash, Git, Matlab, R, AWS, Travis CI, Drone, SonarQube, JIRA, LaTeX, Linux, Windows, MacOS

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## 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**

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## LANGUAGES

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

**German:** Elementary proficiency

**Hungarian:** Native proficiency