

Aigars Reiters

<https://aigarsreiters.tech>

A Software Engineer experienced in designing and building scalable, reliable and maintainable cloud-based micro-services, data pipelines and automation of ML models, with an interest in the music and audio domain.

EXPERIENCE

Neural DSP Technologies

Software Developer

Remote

Sep 2020 - Present

Amazon

Software Development Engineer

Edinburgh, United Kingdom

Sep 2018 - Sep 2020

- **Recruiting Tech:** Designed and built scalable and reliable solutions for automating building of large datasets, as well as the training, validation and deployment of ML models, supporting rapid experimentation.
- **Day One Intelligence:** Initiated and lead several projects, built scalable and performant data pipelines, serverless microservices and frontend components to support HR tools.
- **Personalization:** Built Spark ETL jobs, designed and ran experiments on a deep-learning based recommender for the Amazon retail website worldwide. Gained ML experience by pairing with Machine Learning Scientists.
- **Technologies and Approaches Used (since mid-2019):**
 - * **AWS Services:** ACM, API Gateway, Athena, CloudFormation, CloudFront, CloudWatch, CodeBuild, CodeGuru, CodePipeline, DynamoDB, ECR, ECS, EMR, ElasticSearch, EventBridge, Glue (catalog, crawlers, jobs, workflows), IAM, Kinesis, KMS, Lambda, QuickSight, RedShift, Route53, S3, SageMaker, Secrets Manager, SES, SNS, SQS, Step Functions, VPC.
 - * **Languages (frequently used):** Python, Java, TypeScript, Bash, Scala, SQL.
 - * **Frameworks and libraries:** AWS CDK (Cloud Development Kit), Docker, Gensim (and other NLP frameworks), Jupyter, Keras, NodeJS (+Lerna, Yarn, eslint, jest), Numpy/Cupy, Pandas, React, Sklearn, Spark, TensorFlow.
 - * **Testing:** BDD, TDD, DI, appropriate use of tests (Unit, Integration, Snapshot, Feature, Property), CI/CD pipelines, linting, code coverage, documentation.
 - * **Science:** Read research papers/publications, implementing proof-of-concept prototypes based on them and later migrating them to production-ready solution. Designed and ran A/B experiments, documented and presented results.
- **General:**
 - * Lead architecture design meetings.
 - * Regularly paired on and reviewed code changes made by the team.
 - * Mentored engineers and scientists.
 - * Instructed customers on how to use our tools.
 - * Regular member of an on-call rota, addressing urgent technical/operational issues.
 - * As a scrum master - lead stand ups, retrospectives, planning meetings.
 - * Member of the internal ML reading group.

Eyebright Ltd.

Software Engineer

Glasgow, United Kingdom

Sep 2016 - Jun 2017

- **Pricing tool:** A tool that allows analysts to quickly identify the best utility provider and plan for customers based on their consumption patterns and requirements. Reduced a multi-hour manual process to seconds.
- **Website:** Built a WordPress website and its infrastructure supporting the company's re-branding effort. Worked with the head of marketing to showcase dense information following best UX and security practices.
- **IT Support:** Setup and maintained infrastructure: Linux servers, scheduled data backups, employee machines with Microsoft stack - Windows, CRM and Office Suite, Outlook mail.

School of Computing Science, University of Glasgow

Research Assistant

Glasgow, United Kingdom

Jul 2016 - Sep 2016

- **JUDO - "Join on Unstructured Data" Operation:** Library for performing SQL-like join operations on textual fields based on document similarity rather than an exact match. Powered by Apache Lucene for rapid querying.
- **CATI - Clinically Aware Text Input:** Tool to assist in the writing of medical reports with the aim of reducing error rate, inconsistencies and increasing productivity. Provides real-time text input suggestions based on existing medical reports.

EDUCATION

University of Glasgow

Glasgow, United Kingdom

BSc(Hons) Software Engineering; First Class degree

2014 – 2018

- **Tunable Impulse Counter for Mobile Devices (BSc dissertation):** a Dilated Convolutional Neural Network (CNN)-powered Android application that can count sounds in real-time produced by numerous sound sources in an acoustically complex environment. Included building a dataset, researching and trying possible NN architectures and existing approaches and building an automated training and evaluation pipeline.

Agenskains State Grammar School

Riga, Latvia

Certificate of General Secondary Education; GPA 9.0/10

2010 – 2014

TECHNICAL SKILLS

Languages: Java, Python, Scala, NodeJS/TypeScript, Bash, SQL

Technologies: Extensive AWS experience, CI/CD pipelines, Containers (Docker/ECS), NoSQL DBs, Apache Spark, Anaconda suite, TensorFlow/Keras, Apache Lucene, Version Control (Git), Unix

General: Reading and analysing academic publications; designing and building microservice, streaming and event-driven architectures; data pipelines.

LANGUAGES

English - Bilingual (C2)

Latvian - Native

Russian - Native