

PERSONAL INFORMATION

Ioan Cristian Schuszter

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Date of birth 10.01.1994 | Nationality Romanian

EDUCATION AND TRAINING

UNIVERSITY OF PETROSANI

Petrosani, Romania

Ph.D. in Systems Engineering

Oct 2020 - now (in-progress, expected Q3 2024)

Field: Systems Engineering (Big Data & AI for Critical Software Systems)

WEST UNIVERSITY OF TIMISOARA

Timisoara, Romania

M.Sc. in AI and Distributed Computing

Sep 2016 - Jul 2018

Thesis: Text Classification Using Deep Learning. GPA: 9.90/10

B.Sc. in Computer Science

Oct 2013 - Jul 2016

Thesis: ML Applied for Image Classification. GPA: 9.86/10

CA' FOSCARI UNIVERSITY

Venice, Italy

Erasmus+ sem. 09.2015 - 02.2016

EXPERIENCE

CERN, Geneva Area, Switzerland

Software Engineering Team Lead & Solutions Architect (Staff)

04.2021 - now

Developed and architected various in-house applications for visits, safety, and site access. Full-stack development using React and JVM-based technologies (Spring boot, Grails). Deployed apps to Kubernetes and set up monitoring via Kibana, Prometheus, and Grafana. Developed and deployed several cron-jobs to ArgoCD using GitOps. Responsible for architectural design and mentoring younger colleagues. Supported the new CERN Science Gateway software for visitors from design to production. Solution architect since early 2023. UI Community of Practice lead.

Software Engineer (Fellow)

11.2018 - 04.2021

Key member in the development of the .NET API and React front-end for the new Identity and Access Management service of CERN. Created CI/CD pipelines with Gitlab and Openshift. Developed data pipelines and services for synchronizing data from the old production system in Python. Extended and contributed full-stack Java & AngularJS improvements to Keycloak, featured in the 9.0 release.

Software Engineer (Technical student)

10.2017 - 11.2018

Focused on improving the efficiency of real-time intrusion detection data pipelines (Kafka with Java, Scala and Go) and extending an OSS tool for security incident handling, FIR. Contributed to the upstream Puppet fail2ban module. Contributed SSO integration to TheHive project (Scala).

Softvision, Timisoara, Romania

Data Engineer

09.2016 - 10.2017

Developed complex big data pipelines of batch jobs, using Apache Spark, Airflow and Scala. Worked on developing microservices in Java and Scala using the Play! Framework for a project focusing on infectious disease modeling.

Atigeo, Timisoara, Romania

Data Engineer

02.2016 - 09.2016

Contributed to the development of an analytics library used by data scientists from Jupyter notebooks, in Python and R. Integrated single sign-on with Jupyterhub and developed tooling for distributed algorithms using Spark, Hive and Livy (Scala-based job submission tool).

Share Dimension, Timisoara, Romania

Junior Software Engineer

02.2015 - 02.2016

Contributed to the migration of a cinema scheduling app from Silverlight to a full-stack .NET and AngularJS app.

Continental Automotive, Timisoara, Romania

Junior Software Engineer

06.2014 - 02.2015

Developed tooling for Daimler instrument clusters (dashboards) in C++, Python and C#, such as a screen capture utility.

SKILLS

Programming languages **Advanced:** Scala, Java, Python, Javascript, C#, **Medium:** Go, Puppet, C, C++, Bash, **Novice:** Powershell, Ruby, R

Technologies **Web / VCS:** Grails, Spring Boot, Play! Framework, Flask, Django, .NET Core, Entity Framework, ReactJS, AngularJS, Redux, Express.js, Git, **Data engineering:** Apache Spark, Storm, Airflow, Flink, Hadoop, **DevOps:** Docker, Openshift, Kubernetes, Puppet, **ML:** Tensorflow, Keras, SKLearn, **DB:** Oracle, PostgreSQL, MySQL, SQLServer, HBase, Elasticsearch, MongoDB

Language	Proficiency	Certification (if any)
Romanian	Native	-
English	C2	CAE certificate
French	C1	DELFI certificate
Italian	B1	-
German	A1	-

ACHIEVEMENTS, PROJECTS, RESEARCH

2022, 2023	Winners	Internal CERN group hackathon (FastAPI and RAG LLM model using Confluence data for an internal chatbot)
2021	2nd Place	HackYeah hackathon, blockchain application with Hyperledger
2020	Winners	HackYeah hackathon, November - EloEco
2020	2nd Place	HackYeah hackathon, June - Transcriber
2020	2nd Place	HackYeah hackathon, April - Safe at Home
2019	Tutor	Two-day React and Redux workshop at CERN
2019	Participant	Thematic CERN School of Computing
2018	Participant	Transylvanian ML Summer School by Deep Mind
2018	Winners	IDMSC 2018 - Best Business Idea prize
2017	Winners	HackTM 2017 – Best Mobility and Automotive Solution
2017 - 2017	Teaching Assistant	Algorithms and Data Structures + Individual Project labs
2016	2nd Place	BringITOn 2016 – machine learning classifier builder tool (UI & back-end)
2014, 2016	Participant	ACM ICPC SEE regionals