ÁRON KATONA

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○ github.com/katonaaron ✤ gitlab.com/katonaaron

🎓 EDUCATION

M.Sc. in Artificial Intelligence and Computer Vision
Technical University of Cluj-Napoca

📅 October 2022 – present

B.Sc. in Computer Science
Technical University of Cluj-Napoca

📅 October 2018 – July 2022

- *Valedictorian* of the faculty
- Diploma thesis: *Automatic fact checking with explanations*
  - Developed the FACE system.
  - Paper presented on SYNASC 2022

💼 WORK EXPERIENCE

Teaching Assistant
Technical University of Cluj-Napoca

📅 October 2022 - present ♦ Cluj-Napoca

Artificial Intelligence, Knowledge-based systems

Software Engineer
Cloudflight Romania

📅 April 2023, July 2021 - August 2021

Fullstack application development with Java and VueJS/Angular

Android Developer Intern
Garmin

📅 July 2020 - October 2020 ♦ Cluj-Napoca

- Studied Android development in Kotlin
- Worked on the ActiveCaptain app.

📑 COURSES

Logic for the AI Spring Summer School
Lake Como School of Advanced Studies

📅 12-16 September 2022 ♦ Como, Italy

C and Win32 programming course
Bitdefender

📅 October 2018 - April 2019 ♦ Cluj-Napoca

- I was among the five prizewinners.

❀ CERTIFICATES

Oracle Certified Professional: Java SE 11 Developer

💡 PROJECTS

FACE

- An explainable, automated fact checker.
- Provides explanations in natural language for any detected entailment and contradiction between an input text and a trusted knowledge base.

NLU Description Logic OWLApi Kotlin
Gradle

Translator from propositional logic to Boolean ring arithmetic

- Builds a parse tree and replaces the operators based on the rules described in the article with DOI: 10.1080/07468342.2020.1698931

Python SymPy Logic

3D Chessboard and Piece recognition

- Detects a real chessboard on a digital image, classifies each piece, visualizes the state of the board in a standard 2D format.
- Worked in a team of two.

OpenCV Tensorflow C++
Image Processing

Energy Consumption Monitoring Platform

- A platform for monitoring the energy consumption of electronic devices.
- Distributed system with both synchronous and asynchronous communication

RabbitMQ GRPC Websocket Rest
Angular Spring Boot Kotlin

Tatooine

- Presentation of a Star Wars inspired 3D scene using OpenGL
- Lightning, shadows, object and camera animation

OpenGL Computer Graphics C++

🏆 CONTESTS

- **ACM SEERC 2020, 2021:** participant
- **Google Hash code 2020:** My team was ranked in the top 5% (out of 1000+ teams)
- **Olympiad in Informatics 2018:** 2nd place at county level. Represented my county at the national level.

💬 SOFT SKILLS

Teaching:
- For 8 years I've been leading a **group of scouts**, regularly teaching them based on the scout methodology, and organizing events for them.
- In 2021 I was a teacher in a **computer science group** in my high school, where we had weekly lessons about algorithms, programming and technology.
- Completed the **first pedagogy module**.

Language:
Romanian, Hungarian, German (A2, DSD I), English (C1, LCCI)

✏️ PUBLICATIONS

👥 Conference Proceedings

- Adrian Groza, Aron Katona (2022). "FACE: Fact Checker with Explanations". In: *24th International Symposium on Symbolic and Numeric Algorithms for Scientific Computing*. SYNASC22. Linz, Austria, 12-15 September.

💓 INTERESTS

Interested in:
- Solving challenges and puzzles
- Engineering
- New technology
- Logic in AI

🖥️ TECHNOLOGY

Languages: Kotlin, Java, C, C++, Python, SQL
Frameworks: Spring Boot, Angular, Android
Tools: Linux, Docker, Gradle, Maven, Gitlab-CI