# Scarlat Marius

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## **EDUCATION**

## UNIVERSITY OF BUCHAREST

BS IN COMPUTER SCIENCE

Oct 2022 - Jul 2025 Bucharest, Romania

## **SKILLS**

#### **TECHNICAL SKILLS:**

- Data Structures Algorithms
- Python GRPC SQL Go
- Unit testing Java .NET
- SOLID C/C++ Javascript
- Linux Design Patterns

#### **SOFT SKILLS:**

- Communication Independence
- Leadership Problem Solving
- Adaptability Teamwork

## **INTERESTS**

- Competitive Programming
- Software Architecture
- Distributed Systems
- Heavy Metal
- Travelling

# LANGUAGES

- English
- Romanian

## **EXPERIENCE**

#### **GOOGLE** | STEP SOFTWARE ENGINEER INTERN

Jul 2023 - Sep 2023 | Warsaw, Poland

- Working on the Arcus team, a control plane framework for Google Compute Engine that runs on Borg and manages the life cycle of GCE resources. The project I am working on is a GCE Operation Analyzer CLI tool that will help the modernization team migrate the Arcus monolith to a Micro-Service Architecture
- Designed the API used for gathering data about different GCE operations and constructing an execution graph out of it. The execution graph interface provides different features such as a presentation layer, filtering based on different execution types, and most importantly detecting call stack violations that make migrating the Arcus monolith to a Micro-Service Architecture difficult for the modernization team
- Developed an API used for classifying operations to job namespaces, improved querying time by applying SQL query optimization techniques, and implemented unit tests for each publicly exposed functionality

## **NETROM SOFTWARE** | SOFTWARE ENGINEER

Jun 2022 - Oct 2022 | Craiova, Romania

- Worked on a flower delivery application that was primarily used for planning routes, monitoring drivers, and displaying real-time reports for the back office users
- Developed several screens for monitoring drivers, creating promotions and margins for stores based on their turnover
- Contributed to the restructuring of the ZPL receipt printing service that was hard to extend and maintain

# **PROJECTS**

## WORDLE SOLVER | GITHUB

- Built a wordle solver using data science and information theory with some university colleagues
- The purpose of the algorithm is to maximize the amount of information at each step and select the word with the highest entropy

## COMPETITIVE PROGRAMMING PLATFORM | GITHUB

- Built a competitive programming platform that allows users to safely execute code and get feedback based on the correctness of the submission
- Implemented a complex remote code execution environment that can safely run untrusted executables concurrently
- Implemented a complex panel for proposers to create problems in markdown format, create tests, publish problems and perform complex data filtering on the server side

# **AWARDS**

2021 Bronze Medal at The Romanian National Olympiad in Informatics
2020 3<sup>rd</sup> in Cloudflight Coding Contest, Craiova