THEODOR-PIERRE MOROIANU

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% https://moroianu.work   ♦ Zürich, Switzerland

WORK EXPERIENCE

Committee Member, MateInfoUB Admission Contest
University of Bucharest

📅 2022 - present   ♦ Bucharest, Romania

Key member of the scientific and organization committee of MateInfoUB, a yearly recurring admission contest organized by the University of Bucharest.

Teaching Assistant
ETH Zürich

📅 Sept 2023 – Dec 2023   ♦ Zürich, Switzerland

Teaching assistant for the Algorithms Lab and Network Security core courses, due to my outstanding results in previous iterations. My role involved preparing and holding weekly exercise sessions as well as the evaluation of students' progress.

Quant Developer Intern
Quadrature Capital

📅 July 2023 – Sept 2023   ♦ London, UK

Added Rust support to the internal market data pipeline, and implemented a full-stack real-time order book explorer using Rust , Web Assembly , HTML/CSS and React .

Software Engineer Intern
Jane Street Capital

📅 July 2022 – Sept 2022   ♦ London, UK

Implemented a customizable, log-based alert system listening for errors during the processing pipeline of corporate actions, in OCaml .

Software Engineer Intern
Citadel LLC

📅 June 2021 – Aug 2021   ♦ London, UK

Implemented a full-stack application displaying breaks occurring during the automated post-trading reconciliation process, using Typescript , React and GraphQL .

Software Engineer Intern
Google LLC

📅 July 2020 – Sept 2020   ♦ Zürich, Switzerland

Implemented the OOXML (Microsoft Office format) parser for an internal tool used in the analysis of malicious documents sent over Google services, using C++ .

Competitive Programming Teacher
Bucharest Ultraperformance in Informatics Center

📅 Oct 2019 – June 2022   ♦ Bucharest, Romania

Teacher of algorithms and C++ courses (3h / week) for high-school students engaged in national and international competitive programming competitions.

EDUCATION

MSc in Cyber Security
ETH Zürich

📅 Sept 2022 – present

- Joint degree with EPF Lausanne.
- Receipient of the ESOP scholarship, awarded to 5 people across the entire CS department.
- Majoring in Cyber Security and minoring in Data Management Systems .

Bachelor of Computer Science
University Of Bucharest

📅 Oct 2019 – June 2022

- Valedictorian of the CS department.
- GPA 10.0 out of 10.0.
- Part of a excellence student programme, with more in-depth courses.

Baccalaureate
International Computer High School of Bucharest

📅 Sept 2015 – June 2019

- Part of a special group focused towards competitive programming.
- My high-school has one of the highest number of international science Olympiads medals in the world.
- GPA 9.99 out of 10.0.

SKILLS

- Advanced in C/C++ Python SQL Data Structures Algorithms
- Experience with Rust OCaml Haskell Java JS/TS HTML/CSS React Linux Git PyTorch Docker/Podman

Machine Learning Research Intern
Bitdefender

📅 July 2018 – Aug 2018　　　📍 Bucharest, Romania

Five week internship in the ML department, where I developed a program displaying the saliency maps of various neural networks using PyTorch.

AWARDS

Silver Medal – ICPC World Finals

📅 Oct 2021　　　📍 Moscow, Russia

My team of three won a Silver Medal (8th place) at the International Collegiate Programming Contest Moscow world finals, representing the University of Bucharest.

First Place – International Collegiate Programming Contest, SWERC

📅 Jan 2024　　　📍 Paris, France

My team of three ranked 1^{nst} in the South-Western Europe regional contest of the ICPC contest, representing our university ETH Zürich. We ranked 2nd to the same contest in 2023.

First Place – International Collegiate Programming Contest, SEERC

📅 Oct 2019　　　📍 Bucharest, Romania

My team of three ranked 1st in the South-Eastern Europe regional contest of the ICPC, representing the University of Bucharest.

Finalist – ICPC World Finals

📅 2019, 2023, 2024　　　📍 Russia, Egypt, Kazakhstan

One of the few competitive programmers to qualify to 3 different ICPC World finals, representing ETH Zürich and the University of Bucharest in Moscow, Luxor and Astana.

Silver Medal – International Olympiad in Informatics

📅 August 2019　　　📍 Baku, Azerbaijan

Silver medal at the IOI, the most prestigious Computer Science contest for high-school students.

Gold Medal – Central European Olympiad in Informatics

📅 July 2019　　　📍 Bratislava, Slovakia

4th place at the Central-European high-school Computer Science Olympiad.

Gold Medal – Balkan Olympiad in Informatics

📅 August 2018　　　📍 Timișoara, Romania

2nd place at the Balkan Computer Science Olympiad.

First Place – Romanian National Informatics Olympiad

📅 2018 and 2019　　　📍 Constanța and Suceava, Romania

Twice in a row winner of the Romanian National Olympiad in Informatics.

Third Place – InsomniaHack

📅 March 2023　　　📍 Lausanne, Switzerland

Third place on the academic leaderboard of the largest Swiss CTF contest, representing EPFL (Federal University of Lausanne).

LANGUAGES

🔤 **French** – Native

🔤 **Romanian** – Native

🔤 **English** – Fluent (C2)

🔤 **German** – Beginner

PORTOFOLIO

MateInfoUB Admission Contest
github.com/MateInfo-UB

I created and maintain an online repository containing tasks (statements, sources, tests and solutions) created for the *MateInfoUB* university admission contest, as a member of the organizational committee.

SmartForms – AI-Powered Form Parser
github.com/TeamUnibuc/SmartForms

Wrote an app exposing an API allowing users to create custom forms and questionnaires. The app is then able to digitize scans of filled questionnaires into an *Excel*-compatible format, using Computer Vision.

SSChat – CLI Chat App
github.com/Unibuc4Ever/SScHat

Wrote a userspace library in C for channel-based IPC (inter-process communication), using unix FIFO pipes. To then showcase the library, I built an app exposing a CLI interface allowing users to enter chat rooms and send/receive messages.

Chess Visualizer App
github.com/theodormoroianu/Interactive-Chess-Visualizer

My team of 3 built a web application interactively displaying various chess statistics such as common openings or the ELO evolution of players, as part of a *Data Visualization* course, using React, D3.js and Flask.