

THEODOR-PIERRE MOROIANU

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WORK EXPERIENCE

Teaching Assistant

ETH Zürich

📅 Sept 2023 – Dec 2023 📍 Zürich

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, and grading assignments.

Quant Developer Intern

Quadrature Capital

📅 July 2023 – Sept 2023 📍 London

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

Software Engineer Intern

Jane Street Capital

📅 July 2022 – Sept 2022 📍 London

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

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

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

Competitive Programming Teacher

Bucharest Ultrapformance Program in Informatics

📅 Oct 2019 – June 2022 📍 Bucharest

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

Deep Learning Research Intern

Bitdefender

📅 July 2018 – Aug 2018 📍 Bucharest

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

EDUCATION

MSc in Cyber Security

ETH Zürich

📅 Sept 2022 – present

- Joint degree with EPF Lausanne.
- Recipient 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.
- Baccalaurate grade 9.85 out of 10.

SKILLS

- Advanced in `C/C++` `Data Structures` `Algorithms` `Python`
- Intermediate in `Linux` `Rust` `OCaml` `Git` `JS/TS` `HTML/CSS` `React` `Java`
- Beginner in `Haskell`
- Others: `Mathematics` `ML` `Docker`

AWARDS

Silver Medal – ICPC World Finals

📅 Oct 2021

📍 Moscow, Russia

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

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.

Third Place – InsomniaHack

📅 March 2023

📍 Lausanne, Switzerland

Third place on the academic leaderboard of the largest swiss CTF contest, as part of the official EPFL team.

Second Place – International Collegiate Programming Contest, SWERC

📅 Feb 2023

📍 Milan, Italy

My team of three ranked 2nd in the South-Western Europe regional contest of the ICPC contest, representing our university ETH Zürich.

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.

Gold Medal – Central European Olympiad in Informatics

📅 July 2019

📍 Bratislava, Slovakia

4th place at the leading European high-school Computer Science competition.

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 Olympiad in Informatics.

PROJECTS PORTOFOLIO

SmartForms – AI-Powered Form Parser

<https://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 a `CNN` written in `Pytorch`.

SSChat – CLI Chat App

<https://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

<https://github.com/theodormoroianu/project-2023-mobile-network-dropouts>

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`.

LANGUAGES

🇫🇷 **French** – Native

🇷🇴 **Romanian** – Native

🇬🇧 **English** – Fluent (C2)

🇩🇪 **German** – Beginner

HOBBIES

- Ping-Pong
- Ski
- Cooking
- Boardgames
- Sci-Fi reading
- CTF enthusiast
- Former Boy-Scout in both France and Romania (8 years including chief position)