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## Summary

MSc candidate in Computer Science with specialization in blockchain technologies and consensus protocols. Practical experience with Nethermind and as a freelancer, plus active contributions to open-source projects. Proficient in a wide range of programming languages and technologies including Go, Rust, and Python, with a passion for functional programming and distributed systems.

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## Work Experience

### Internship

June of 2023 - September of 2023

*Nethermind*

- Worked on Starknet.go

### Junior Researcher

September of 2022 - September of 2023

*Release Lab*

*Universtiy of Beira Interior*

- Working on Master's thesis.
- Received Research Grant

### Freelancer Software Developer

October of 2019

*Multiple Companies*

- Developed management tools, bots, managed servers and databases on request for multiple companies and customers.

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## Relevant Projects

### Research on Blockchain Consensus Algorithms

2023

*Master's Thesis*

- Blockchain, Distirbuted Systems, Consensus Algorithms, Tezos, Functional Programming
- Tezos Node, OCaml language
- Developed a Protocol Live Testing and Benchmarking tool. Developed multiple protocols.

### Pascal Compiler

2022

*Compiler and Language Design Class*

- Language Design, Parsing, Lexing, Assembly code generation
- OCaml language, OCamllex, OCaml Menhir, X86\_ Assembly
- Developed a implementation of a Pascal Compiler that generates x86\_64 assembly code.

### Research on Distributed Algorithms

2021

*Bachelor's Thesis*

- Distributed Systems, Distributed Data Structures, Mutual Exclusiion, Concurrency
- Go Language
- Studied the original “Arrow Distributed Directory Protocol” and developed a implementation of a node in Go, to test the algorithm in a distributed setting. Implemented a visualization of the state of the network (and the distributed data structures), and Ownership/Requesting/Arrival events history.

## Education

### Master of Science in Computer Science

2021 - 2023

*University of Beira Interior*

*(Top 3 in class)*

### Bachelor of Science in Computer Science

2018 - 2021

*University of Beira Interior*

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## Skills

<b>Programming</b>	Go, OCaml, Rust, Python, C, Java, JavaScript, Bash, SQL, HTML, CSS, X86_64 ASM
<b>Technical Skills</b>	Linux, Git, Smart Contracts, Web Development, Data Structures and Algorithms, CI/CD, Containerization, Relational and Non-Relational Databases, RESTful APIs, Debugging and Troubleshooting
<b>Soft Skills</b>	Communication and interpersonal skills, Problem-solving and critical thinking, Teamwork
<b>Languages</b>	Portuguese (native speaker), English (fluent), Spanish (beginner)

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## Interests

### Technical Interests

Distributed Systems, Consensus Algorithms, Blockchains, Functional Programming, Compilers and Language Design, Computer Logic and Theory, Security of Systems and Software, Formal Language Verification, Operating Systems, Computer Security

### Past Activities

Music Formation, Saxophone Classes (5 years)

Federated in Basketball (3 years)

### Other Hobbies/Interests

Fishing, Beekeeping, Farming, Cycling

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## Extras

### Solana Breakpoint Conference 2023

November 2023

*Received Student Fellowship Ticket*

*Amsterdam, Netherlands*

### ICPC SWERC 2023

February 2023

*South Eastern Europe Programming Competition*

*Politecnico Milano, Milan, Italy*

### Solana Breakpoint Conference 2022

November 2022

*Received Student Fellowship Ticket*

*Lisbon, Portugal*

### MIUP 2022

October 2022

*National Programming Competition*

*Coimbra University, Coimbra, Portugal*