

Cristian-Gheorghe Cretan

Bucharest, Romania

M +40761937503 • E gccretan@gmail.com • W www.cristicretan.ro

Work Experience

CrowdStrike Bucharest

Software Engineer

March 2024 - Present

- Co-designed a multi-bucket re-architecture of the malware-sample storage platform (~30 PB across 3 clouds, ~600 TB/month ingest); owned the detailed technical design, cost/retention research, and full implementation in Go, Cassandra, and S3.
- Designed retention and deduplication levers worth ~\$1-1.3M/year against a ~\$2.8M/year storage baseline; built the storage-location registry, per-bucket TTL retention, and priority-ordered multi-read with zero-downtime legacy fallback.
- Cut latency ~80% in a production service by reworking its concurrency model and optimizing execution paths under sustained load.
- Led performance investigations on high-RPS services (~2-3M req/s) and added a Redis caching layer to cut datastore pressure and redundant read traffic.
- Saved ~\$230K/year in infrastructure cost by right-sizing a service's resource usage through dynamic scaling and hot-path optimization.

CrowdStrike Bucharest

Threat Researcher

September 2022 - March 2024

- Initiated and built a Go service automating ingestion and analysis of file hashes, producing probabilistic true/false-positive assessments.
- Developed adversarial-emulation tooling in C++, C#, and Python for detection testing.

CrowdStrike Bucharest

Threat Analyst Intern

July 2022 - September 2022

- Built a Python parser for Invoke-Obfuscation variants and tested each against Falcon to validate detection coverage.

Keysight Technologies Bucharest

Software Engineer Intern

June 2021 - September 2021

- Built a client-server PoC in C over the H2O library to exercise HTTP/3 performance and reliability.

Politehnica University of Bucharest

Undergraduate Teaching Assistant

2019 - 2023

- Taught labs and built study materials for Operating Systems and Computer Architecture / Assembly Language.

Projects

GPU Parallel Hash Table (CUDA)

- Built a GPU-accelerated hash table with dynamic resizing tuned for VRAM utilization; documented a performance analysis on large datasets.

On-demand ELF Loader (C)

- Implemented an on-demand ELF loader that maps program segments lazily and services page faults through a custom SIGSEGV handler over UNIX system calls.

Education

BSc Computer Science and Engineering, Faculty of Automatic Control and Computer Science

3.64 out of 4, Politehnica University of Bucharest

2018 - 2022

Relevant coursework: Parallel and Distributed Algorithms, Local Networks, Operating Systems, Numerical Methods, Data Structures, Assembly Language, Object-Oriented Programming, Algorithm Design, Programming Paradigms, Communication Protocols

Skills

Programming: Python, Go, C, C++, Java, C#, CUDA, Bash

Technologies: Cassandra, Redis, S3, gRPC, AWS, Kubernetes, Flask, MongoDB, Splunk, MITRE ATT&CK

Languages: English (C2), Romanian (Native)

Achievements and Additional Experience

- Qualified for the preliminary Romanian national team for the European Cybersecurity Challenge (ECSC), 2020