

WORK EXPERIENCE

POLITEHNICA University of Bucharest, Department of

Teaching Assistent

Computers

November 2018 - Present

TA for the following courses: Introduction to Operating Systems, Intro to Programming, Operating Systems, Computing Systems Architecture.

Developed a new course with a focus on memory safety, metaprogramming and interoperability. Develop, update and review course and lab materials.

Coordinate the infrastructure team of multiple courses.

Propose and coordinate bachelor thesis and master dissertations.

Software Engineer

D Language Foundation

October 2016 - Present

Work on the development of the compiler, runtime and standard library of the D programming language.

Presented my work on multiple occasions at DConf, the annual language's conference.

For the past years, I have been a mentor for the Foundation's GSoC like program, SAoC:

<https://dlang.org/blog/category/saoc/>

Software Engineer, Intern

Bloomberg LP Lugano

June 2018 - September 2018

Worked on designing and implementing and automating a hybrid Mesos Cluster for batch workflows processing.

Software Engineer, Intern

Bloomberg LP London

July 2017 - September 2017

Worked on designing and implementing a visual regulatory rules editor for the IRS team.

Software Engineer, Intern

Bloomberg LP London

June 2016 - September 2016

Worked on designing and implementing a database parallel querying solution for a Bloomberg Terminal function

Software Engineer, Intern

Intel Corporation Bucharest

December 2015 - June 2016

Intel Software Guard Extensions (SGX) Development

Software Engineer, Intern

Microsoft Redmond

June 2015 - September 2015

Enterprise & Security DEV R&D.

Software Engineer, Intern

IXIA Bucharest

June 2014 - December 2014

C / C++ Developer

Changed the adding of simulated users logic which lead to a gain in receiving throughput

Caught and fixed race conditions that caused duplicate operations calls which caused crashes

Implemented TCP Statistics feature

Bug fixing in both user-space and kernel-space

EDUCATION

Politehnica University of Bucharest

Faculty of Automatic Control and Computer Science

October 2018 - Present

Pursuing a Ph.D. in Computer Science

My research interests include programming languages, security and vulnerability detection, code and binary analysis, supply chain attacks, distributed systems, IoT and computer vision.

Politehnica University of Bucharest M. Sc. in Computer Science GPA: 5 out of 5	Faculty of Automatic Control and Computer Science	October 2016 - September 2018
Politehnica University of Bucharest B. Sc. in Computer Science GPA: 4.8 out of 5	Faculty of Automatic Control and Computer Science	October 2012 - September 2016
Cisco's PUB Academy	CCNA 3	November 2014 - Feb 2015
Cisco's PUB Academy	CCNA 2	March 2014 - June 2014
Cisco's PUB Academy	CCNA 1	November 2014 - Feb 2014

TECHNICAL EXPERIENCE

Projects

Dlang - Open source contributor for the standard library, runtime and reference compiler of the D programming language [0].

DSS - For the past four years I have organized the D Summer School (DSS) at UPB. DSS is a D programming language bootcamp for students, during which many make their first Open Source contribution [1].

River - An Open Source framework that uses AI and concolic execution to guide the fuzz testing of binary applications [2]. I have worked on the binary analysis and concolic execution engine.

Lib2Life - Translate physical documents to a digital format and enrich the digital copies by adding meta-information, indexing capabilities and smart search, while keeping their original aspect. I have worked on the image processing, OCR, metadata enrichment and distributed processing infrastructure. The processing solution was used by the libraries from Bucharest, Cluj, Iasi and Timisoara to process more than 4M pages.

TraVIS - a GPU Accelerated Computing Tool for Monitoring and Analyzing Network Traffic. The tool is written in C and CUDA.

[0] - <https://github.com/dlang>

[1] - <https://dlang-upb.github.io/D-Summer-School/>

[2] - <https://github.com/unibuc-cs/river>

ADDITIONAL EXPERIENCE AND AWARDS

First Prize, Student's Scientific Talks, Bachelor's Section 2015: Awarded for the design and innovation of TraVIS

Second Prize, Student's Scientific Talks, Master's Section 2015: Awarded for the design and innovation of TraVIS

First Prize, IBM's Case Study 2013: Awarded 1st prize for designing a mobile app for reducing air pollution.

Languages and Technologies

Good: C, C++, D, Python, JavaScript, bash, git, Docker, Ansible

Intermediate: Apache Mesos, Apache Airflow, Apache Kafka, SaltStack, Java, HTML, CSS

Prior Experience with: CUDA, Scheme, Haskell, COM, svn, Perforce

Good knowledge of: Object Oriented Programming, Data Structures, Operating Systems, Distributed Systems, DevOps, Cybersecurity, Safe Programming