



Alex-Călin Bulzan

Email address: alex.bulzan@campus.utcluj.ro |

• ABOUT MYSELF

Highly motivated engineering student with a strong interest in DevOps and cloud-native technologies. Driven to deepen my expertise in automation, CI/CD, container orchestration, and modern infrastructure practices. Committed to continuous learning and building reliable, scalable systems that deliver real impact.

• WORK EXPERIENCE

28/10/2024 - CURRENT - CLUJ-NAPOCA, ROMANIA

JUNIOR DEVOPS ENGINEERAIRPORTLABS

- Designed and implemented automation workflows to identify and eliminate redundant scripts across all AirportLabs products, improving maintainability and reducing technical debt
- Managed and orchestrated container infrastructure using Docker, Docker Swarm, and Kubernetes across the entire product portfolio
- Actively participated in L2/L3 on-call rotations, ensuring rapid incident response and system reliability
- Developed and maintained Terraform configurations for infrastructure-as-code, ensuring compliance with organizational and regulatory standards
- Created Ansible playbooks to enable consistent, reproducible deployments across environments
- Built an internal on-call scheduling tool featuring heuristic and solver algorithms for fair and efficient rotation management
- Developed a security auditing tool for infrastructure port exposure analysis, supporting compliance requirements
- Established CI/CD best practices with comprehensive validation pipelines across dev, staging, and production environments
- Enhanced backup and data archival processes to meet client requirements and compliance standards
- Authored SRE runbooks for L1/L2 support teams, covering alert response, mitigation strategies, and remediation procedures across all products
- Upgraded SonarQube to a hardened LTS version and implemented n8n integration platform using RapidFort hardened images, applying CIS-compliant Docker configurations across new tools and services
- Collaborated with team members to design and execute failover testing procedures for client audits
- Enabled system upgrades with minimal production downtime through careful planning and execution
- Supported penetration testing initiatives by preparing isolated test environments for security audits and compliance validation

Email: alex.bulzan@airportlabs.com | Website: www.airportlabs.com

02/04/2026 - 31/12/2026 - CLUJ-NAPOCA, ROMANIA

RESEARCH ENGINEERTECHNICAL UNIVERSITY OF CLUJ-NAPOCA

- Conducting fundamental research on route optimization and traffic security in next-generation vehicle-to-network (V2N) communication networks, under the guidance of senior project researchers
- Contributing to technical and administrative deliverables, scientific publications, and dissemination of research results in line with project performance indicators
- Collaborating with the research team and supporting project management in resolving ongoing and unforeseen issues

Email: bulzan.so.alex@student.utcluj.ro | Website: <https://utcluj.ro>

• VOLUNTEERING

30/09/2021 - 19/07/2024 Cluj-Napoca

- Managed a team of colleagues to ensure efficient and effective administration of student accommodations in dormitory building 5 of the Observator Student Campus
- Organized and oversaw internal processes, including document validation and system data verification
- Ensured access to necessary services, provided tutorials and guides for students, and maintained contract compliance while addressing behavioral issues and requests

● EDUCATION & TRAINING

28/09/2025 - Current - CLUJ-NAPOCA, ROMANIA

MASTER OF SCIENCE IN TELECOMMUNICATIONS- TECHNICAL UNIVERSITY OF CLUJ-NAPOCA (UTCN)

- Network security, cloud communications, and cybersecurity (including AI-based approaches)
- Mobile communications systems (3G/4G/5G) and wireless network planning
- Machine learning and deep learning applications in telecommunications
- Data mining, analytics, and cloud orchestration using Python
- Intelligent transportation systems and high-throughput data transmission technologies

Field(s) of study: Faculty of Electronics, Telecommunications and Information Technology (English Section) | **Level in EQF:**

7 | **Type of credits:** ECTS | **Number of credits:** 120 | **Website:** https://el.el.obs.utcluj.ro/tc_en/

30/09/2020 - 19/07/2024 - CLUJ-NAPOCA, ROMANIA

BACHELOR'S DEGREE- TECHNICAL UNIVERSITY OF CLUJ-NAPOCA

- Digital Signal Processing (DSP)
- Analog and Digital Electronics
- Microprocessors I-II
- Circuit Design and Analysis
- Network Protocols and Architecture
- Information and Coding Theory
- Optoelectronics
- Telecommunications Systems
- VLSI Design
- Object-Oriented Programming
- Web Technologies and Databases
- Computer Networks
- Internet of Things (IoT)
- Mobile Communication Systems
- Radio Communications
- Digital Image Processing
- Multimedia Technologies
- Microwaves

Field(s) of study: Faculty of Electronics, Telecommunications and Information Technology (Romanian Section) | **Final**

grade: 9.8/10 (Excellent) | **Level in EQF:** 6 | **Type of credits:** ECTS | **Number of credits:** 240 | **Thesis:**

Blockchain-as-a-Service: Automating the implementation of a Private Blockchain Network | **Website:** etti.utcluj.ro

30/11/2015 - 30/11/2019 - ȘIMLEU SILVANIEI, ROMANIA

HIGH SCHOOL DIPLOMA- COLEGIUL NAȚIONAL "SIMION BĂRNUȚIU"

Level in EQF: 4 | **Address:** Str. 1 Decembrie 1918, nr. 49B Simleu Silvaniei, Romania 455300 | **Website:**

<https://www.colegiu-simleu.ro/>

● CERTIFICATIONS

04/07/2026 Cloud Native Computing Foundation

Kubernetes and Cloud Native Associate

Certificate ID Number: LF-oxa6u7w4ua

Link <https://training.linuxfoundation.org/certification/verify/>

24/09/2025 Bittnet Systems
DevSecOps Fundamentals and Applications

- Security integration in CI/CD pipelines (Shift-Left Security)
- Vulnerability scanning and static code analysis (SAST/DAST)
- Container security and image hardening
- Infrastructure as Code (IaC) security practices
- Secrets management and secure configuration

Link bittnet.ro

05/01/2023 IT SCHOOL
Quality Assurance Automation Software Testing

- Write here the descriptionAutomated front-end testing using Python and Selenium WebDriver
- API testing and validation with Postman and Python requests
- CI/CD pipeline integration with Jenkins for continuous testing
- Behavior-Driven Development (BDD) testing using Cucumber framework
- Test-Driven Development (TDD) principles and best practices

Link itschool.ro

● **LANGUAGE SKILLS**

Mother tongue(s): **ROMANIAN**

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
ENGLISH	C1	C1	C1	C1	C1
SPANISH	C1	C1	C1	C1	C1

● **SKILLS**

Unit Testing (xUnit) | Automation Testing | Web Automation with Selenium & Other frameworks | Web Designing & Web Development | Cucumber for Behavior-Driven testing | API Development | MongoDB / Mongoose | NoSQL Databases | Docker (Docker Compose) | Hyperledger Fabric Blockchain | Linux (Terminal Commands, Bash/Shell) | Cloud Computing | Kubernetes | Gitlab CI/CD | Terraform | Ansible | Git | AWS | Grafana | Python | Prometheus | Vagrant | VirtualBox | KVM | QEMU | Jira | Postman | XAMPP | OOP | Functional Programming | TDD | BDD | Agile | MySQL | PostgreSQL | Microservices | Protobuf, gRPC | Golang | PHP | Nginx | Redis | JavaScript | FaaS

● **PUBLICATIONS**

[Analysis of a Modified Hyperledger Fabric Blockchain Architecture for GDPR-Compliant IAM](#) 2026
Alex Bulzan, Robert Botez, Virgil Dobrota Multidisciplinary Digital Publishing Institute Information

[Permissioned Blockchain-as-a-Service: Architecting Secure and Efficient Private Blockchain Networks](#)
2024
Alex Bulzan, Robert Botez, Virgil Dobrota Authors: Alex Bulzan, Robert Botez, Virgil Dobrota. IEEE International Symposium on Electronics and Telecommunications (ISETC)

● **DRIVING LICENCE**

Driving licence: B

Driving licence: B1

Driving licence: BE

Driving licence: AM

- **COMMUNICATION AND INTERPERSONAL SKILLS**

Strong analytical and critical thinking

Adaptable to fast-paced Agile work environments

Strong diagnostics and problem-solving abilities

Clear and effective communicator