

# Cristian Tcaci

Innovative Software Engineer | DevOps & Cloud Enthusiast | Researcher

## CONTACT

 London, W9

 +44 7588221922

 Jeky.tck@gmail.com

 linkedin.com/in/cristian-tcaci

 github.com/Chris0Jeky

## TECHNICAL EXPERTISE

### PROGRAMMING LANGUAGES:

Java (OOP, Concurrency, JavaFX, JUnit) C++ (STL, OOP, Memory Mgmt)

Magik (Smallworld GIS) Python (Scripting, Pandas, Scikit-learn)

JavaScript (ES6+, DOM) TypeScript (Basics) Bash Groovy

SQL (MySQL, PostgreSQL) NoSQL (MongoDB) PHP (Coursework)

HTML5/CSS3

### FRAMEWORKS & LIBRARIES:

Vue.js Node.js/Express.js Bootstrap jQuery Scikit-learn

TensorFlow (Basics) PyTorch (Intro) MUnit JUnit Catch2

Mocha/Chai (Basics)

### DEVOPS & CLOUD:

AWS (EC2, S3, Security Groups, CI/CD Integration)

Jenkins (Pipeline Scripting, Groovy) Docker (Basics, Images)

Kubernetes (Intro-level) GitHub Actions GitLab CI (Familiarity)

Terraform (Concepts)

### SECURITY & TESTING:

Nmap (Port Scanning, Automation) Cybersecurity (Vulnerability Scanning, Policy)

Secure Coding (Injection Prevention, Data Validation) Pen Testing (Basics)

### DATABASES & DATA HANDLING:

MongoDB (Atlas, CRUD, Indexing)

SQL (Schemas, Normalization, Stored Procedures)

Data Analysis (Python, Pandas, Matplotlib, CSV/JSON)

### SOFTWARE ENGINEERING & ARCHITECTURE:

OOP & Design Patterns (Factory, Singleton, Observer, MVC) UML Diagrams

Microservices Concepts (Partitioning, Node Usage)

Robotics Fundamentals (Arduino, C for Microcontrollers)

### CI/CD & COLLABORATION TOOLS:

Git (Branching, Merging, Conflict Resolution) Jira (Tickets, Sprints, Agile Boards)

Confluence/Wiki (Documentation)

## SOFT SKILLS & METHODOLOGIES

Agile/Scrum Problem-Solving Leadership Communication Mentoring

Presentation Skills Resilience Stakeholder Engagement Adaptability

Critical Thinking Teamwork Coaching

## LANGUAGES

English (Fluent)

Italian (Fluent)

Romanian (Native)

Moldovan (Native)

## Professional Profile

Highly motivated Software Engineer with hands-on experience in enterprise DevOps, cloud security (AWS), and legacy software maintenance. My GE Digital internship involved end-to-end project ownership, integrating Nmap automated port scanning into large-scale AWS CI/CD pipelines and enhancing a proprietary Magik ecosystem. Currently completing a BSc in Computer Science at Middlesex University, with ongoing research towards a publication on N-Person Iterated Prisoner's Dilemma simulations.

I thrive on bridging full-stack development (Vue.js, Node.js, MongoDB) with robust DevOps practices and a "security by design" philosophy. A proactive problem-solver, I am adept at translating technical complexities for diverse audiences and am committed to continuous learning in AI, cloud-native solutions, and advanced software architecture.

## Professional Experience

### DeliveraSoft / DevOps Engineer & Full-Stack Developer (Freelance)

London, UK (Remote) | Mar 2024 - Present

- Developing automation scripts and software solutions for small to medium-sized Italian businesses.
- Designing and implementing landing pages, enhancing online presence and user engagement.
- Providing technical troubleshooting, database management (cleaning, normalization), and IT consulting.
- Collaborating closely with stakeholders as part of a two-person team to deliver tailored solutions.

### Middlesex University / Researcher

London, UK (Hybrid) | Apr 2024 - Present

- Lead author for a scientific paper on N-Person Iterated Prisoner's Dilemma (N-IPD) simulations, investigating the emergence of cooperation.
- Expanding thesis research for publication, collaborating with academic supervisors.
- Conducting scholarly research, academic writing, and refining multi-agent reinforcement learning models.

### GE Digital / Software Engineer Intern

Cambridge, UK | Jun 2023 - Sep 2024 (1 yr 4 mos)

- Spearheaded integration of automated Nmap scanning into ~72 AWS CI/CD pipelines using Jenkins, Bash, and Groovy, significantly reducing manual checks and enhancing pre-release security posture.
- Maintained and enhanced legacy Magik (Smallworld GIS) codebase: fixed bugs, improved database interactions, and developed MUnit tests.
- Collaborated with DevOps engineers and security architects, contributing to improved pipeline reliability and early vulnerability detection.
- Active participation in daily stand-ups, code reviews, and agile ceremonies; documented solutions and best practices.
- Earned #Spotlight Award for "Deliver with Focus" for proactive ownership of critical security initiatives.

### Middlesex University / Student Ambassador & Student Voice Leader

London, UK | Nov 2023 - Present

- Represented the university at events, guiding prospective students and sharing insights into academic life.
- Gathered and presented student feedback to faculty and departmental boards, contributing to curriculum and experience improvements.
- Enhanced public speaking, negotiation, and leadership skills through active engagement and formal training.

### MP Moran / Stock Controller

London, UK | Feb 2022 - Jun 2023 (1 yr 5 mos)

- Managed inventory accuracy, implemented policies reducing wastage by ~12.5%, and improved inter-departmental communication.
- Utilized inventory management software for data analysis, trend identification, and process optimization.

## CERTIFICATIONS & TRAINING

Public Speaking Diploma (Level 1) - The SPEAKup Challenge

Oracle Java Certification: Methods and Inheritance (Step towards OCP)

## Education

### Middlesex University, London, UK

BSc (Hons) Computer Science (with Industrial Placement)

Oct 2018 – May 2025 (Anticipating First Class Honours)

**Key Modules:** AI & Data Science, Full-Stack Development, Software Engineering, Machine Learning, Operating Systems, Computer Networks.

**Thesis & Research:** "Emergence of Cooperation in N-Person Iterated Prisoner's Dilemma," currently preparing for publication.

### ITC Vincenzo Arangio Ruiz, Rome, Italy

IT Diploma (Informatica e Telecomunicazione)

Sep 2011 – July 2016

Focus on Computer Science (JavaScript), Electronics, Project Management, and Network Systems.

## Key Projects & Research

### N-Person Iterated Prisoner's Dilemma Simulation (Research/Thesis)

Developing a Multi-Agent Reinforcement Learning (MARL) simulation to study cooperation dynamics in complex N-player scenarios. Aiming for academic publication. (Python, Soar Cognitive Architecture concepts).

### Full-Stack "Lesson Purchase" Web Application (Vue.js, Node.js, MongoDB)

Designed and deployed a feature-rich single-page application with RESTful APIs, dynamic data rendering, search-as-you-type, sorting/filtering, robust form validation, and secure authentication. Deployed on AWS/Render.com.

### Machine Learning Digit Recognition (Java)

Implemented various ML algorithms from scratch (k-NN, MLP, SVM, Ensembles) for handwritten digit classification, achieving ~98.4% accuracy. Focused on algorithmic understanding, data wrangling, and performance analysis.

Further project details and code repositories available on ***GitHub***.

## Awards & Recognition

**#Spotlight Award "Deliver with Focus"** - GE Digital (Dec 2023)

Recognized for leading a critical DevOps security initiative (Nmap automation in AWS CI/CD pipelines).

**District's Best Branch** - Starbucks (2021)

Contributed to team success through high sales volumes and customer satisfaction as Shift Supervisor.