

Cristian-Adrian Colăcel

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[LinkedIn](#)

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[GitHub](#)

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Summary About Me

I am a "Computer Engineering" graduate and an early-career software engineer based in Bucharest. I am currently pursuing a master's degree in "Information Systems" at "University POLITEHNICA of Bucharest" and I am targeting backend, API, and platform-oriented engineering roles. My strongest evidence comes from turning AI and data work into usable applications through FastAPI services, React interfaces, retrieval pipelines, model-serving workflows, and evaluation notes; currently strengthening Google Cloud foundations through BigQuery, Vertex AI, generative AI, and cloud data labs.

Technical Skills

Languages	Python • C/C++ • SQL • JavaScript
Backend & APIs	FastAPI • Flask • Django • Django REST Framework • REST APIs
Data & Databases	Pandas • NumPy • PostgreSQL • MySQL • MongoDB • BigQuery
Testing & Delivery	Debugging & issue investigation • Code reviews • Git • GitHub • Linux • Problem-solving
Frontend	React • TypeScript • Tailwind CSS

Selected Projects

"StartStack Platform" [GitHub](#)

2026

- Built a full-stack marketplace MVP that connects startup services, template sales, client onboarding, invoicing, payments, and staff operations into one structured platform.
- Implemented domain-separated FastAPI services, relational workflows, object storage integration, and Docker-based local deployment.
- Integrated public, client, and staff-facing flows across checkout, licensing, assets, inventory, and operational KPI reporting.

Stack: FastAPI, PostgreSQL / YSQL, React, Docker Compose, MinIO, SQLAlchemy, Alembic

"Smart Solar Tracking System"

Apr 2024 - May 2025

- Built a deployable smart photovoltaic system combining embedded control, telemetry, backend monitoring, adaptive energy management, and weather-aware forecasting.
- Integrated ESP32 control, Raspberry Pi orchestration, PostgreSQL telemetry, Django APIs, power-management logic, and sensor-driven protection workflows in one deployable system.
- Added LSTM-based forecasting and environmental control logic so the platform could react to changing solar and weather conditions automatically.

Stack: ESP32, Raspberry Pi, Django, PostgreSQL, LSTM, Sensors, IoT

"Multimodal Retrieval and RAG Engine" [GitHub](#)

Oct 2025 - Present

- Built a local-first AI retrieval system that connects natural-language queries with ranked image and video results, supported by semantic search and grounded explanations.
- Implemented 4 FastAPI endpoints for image search, video search, reverse search, and local model management.
- Built a local-first retrieval system for ranked image and video search using CLIP embeddings, FAISS nearest-neighbour search, and caption-aware reranking.

Stack: FastAPI, FAISS, CLIP, RAG, React/Vite, Python

Work Experience

Web Development Intern · RegioImpex, Bucharest, Romania

Jun 2024 - Sep 2024

- Delivered production Django features during a 4-month internship, covering backend logic, MySQL-backed relational models, validation, reporting, and internal workflow screens.
- Implemented authenticated operational workflows with searchable history views and CSV exports for business records.
- Collaborated within an intern development team using GitHub-based delivery practices across backend, database, debugging, and testing tasks.

Stack: Django, Python, MySQL, SQL, GitHub, CSV reporting, Debugging, Testing

Quality Control Assurance · Electronics Arts (EA), Bucharest, Romania

Jun 2022 - Dec 2022

- Executed functional, regression, and compatibility testing for Dragon Age: The Veilguard across PC, PlayStation, and Xbox platforms.
- Collaborated with development and production teams on bug reproduction, build tracking, and release support.

Stack: QA testing, Regression testing, Bug reporting, Cross-platform testing

Education

M.Sc. Information Systems

Sep 2025 - Present

University POLITEHNICA of Bucharest | Bucharest, Romania
Field: Information and Communication Technologies

- **Relevant Courses:** Statistical Methods and Models in Information Engineering, Image Processing and Computer Vision Software Applications, Multimedia Technologies and Systems
- **Relevant Skills:** multimedia systems, scientific databases, computer vision, image and signal processing

B.Eng. Computers and Information Technology

Sep 2020 - Jun 2025

University POLITEHNICA of Bucharest | Bucharest, Romania
Field: Information and Communication Technologies

- **Relevant Courses:** Database Design (including MySQL, Oracle, and MongoDB coursework), Artificial Intelligence Systems Engineering, Communication Systems
- **Relevant Skills:** database design with academic MySQL, embedded systems, software engineering, Oracle

Other Relevant Courses

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| - Google Cloud: Introduction to Data Analytics in Google Cloud | Nov 2025 |
| - Google Cloud: Introduction to Responsible AI | Aug 2025 |
| - Google Cloud: Introduction to Large Language Models | Aug 2025 |
| - Google Cloud: Introduction to Generative AI | Apr 2025 |

Contact & Portfolio

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