

ALEXANDRE COLL

ETL / DATA ENGINEER

ABOUT ME

ETL Engineer with 6+ years building data pipelines and IoT platforms at scale (millions of records/day, 18K+ devices). Experience in machine learning, anomaly detection and time-series forecasting. Astronomer-certified in Apache Airflow 3. Focused on growing in data engineering.

PERSONAL INFORMATION

alex.coll.molina@gmail.com

+34 605241235

/alexandre-coll-molina

Driving License

github.com/AlexandreColl

alexandrecoll.dev

LANGUAGE

- Spanish: Native
- Catalan: Native
- English: B2 | Certified by the University of Balearic Islands

WORK EXPERIENCE

ETL / Data Engineer
Wireless DNA (WDNA)
JUN 2020 - PRESENT

- Design and build a big data architecture (HDFS storage, Spark as query engine).
- Build IoT alarm system with anomaly detection for 18K+ devices (MQTT, Pub/Sub).
- Develop LSTM model to forecast mobile network saturation.
- Build ETL pipelines with Python, SQL, PySpark, Airflow and RabbitMQ.
- Develop REST APIs with FastAPI: internal services, alarms and public APIs.
- Ensure data quality: validate, clean and correct IoT and meteorological data.
- Design PostgreSQL databases and tune them for performance.
- Deploy with Docker and CI/CD on own servers; help develop them (GitFlow).

Freelance Data Engineer
Sociedad Española de Psiquiatría y Salud Mental
MAR 2025 - MAR 2026

- Developed Python ETL backend to extract, transform and store psychology data.
- Built Windows app to display the data as the client required.

PROJECTS & EDUCATION

- **MallorcaDataPlatform**: open-data pipeline (Python, PySpark, Airflow, PostgreSQL).
  - dbt project: layered and incremental models.
  - Read-only REST API (FastAPI) on the gold layer; Docker Compose stack.
- **Master's Degree in Intelligent Systems** (AI & Mobile Robotics) | UIB | 2023
- **Bachelor's Degree in Industrial and Automatic Engineering** | UIB | 2019
- **Astronomer Certification: DAG Authoring for Apache Airflow 3** | 2026

TECHNICAL KNOWLEDGE

- **Languages: Python (FastAPI), SQL, Bash/Shell, PowerShell, R**
- **Data & ETL: Airflow, Spark, Hadoop, MQTT, RabbitMQ, Kafka, Pub/Sub, dbt (personal)**
- **Databases: ClickHouse, PostgreSQL, Redis, MySQL, InfluxDB**
- **ML / AI: Scikit-learn, TensorFlow, PyTorch (CNN, RNN/LSTM, GAN)**
- **DevOps: Linux, Docker, Git (GitFlow), CI/CD**
- **Cloud: OCI (S3-compatible), basic AWS / Azure**