

Arthur Allilaire, Software Engineer

📍 London ✉ arthur.allilaire@gmail.com ☎ 07752 715719 🔗 Arthur-Allilaire 🌐 ArthurAllilaire

Profile

Final-year Computing student at Imperial College. Developed strong coding skills during three internships, focused on scalable AI systems and data integration. Built a strong understanding of customer needs and ability to contribute to a dynamic, product-focused team. Passionate about leveraging technology to solve real-world problems. **French & British citizenship.**

Experience

Palantir, Software Engineer Intern, Data Federation Team London | Jul 2025 – Sep 2025

Improved performance and interoperability of Palantir's Foundry platform with external data systems.

- Optimized batch registration of virtual tables (external datasets), reducing latency by up to **40%** for large requests.
- Enabled wholistic data governance by **integrating external data lineage** from **Databricks** and **Snowflake**.
- Full-stack development: Micro-service infrastructure (Java + [Conjure](#)), React front-end & Kubernetes deployment.
- Received a return offer to rejoin as Software Engineer, starting Oct 2026.

River Learning Trust (RLT), Data Developer (Part-Time) Oxford (Remote) | Oct 2024 – present

Worked part-time (10-15 hrs/week) alongside studies at Imperial, migrating the trust-wide data architecture from **spreadsheets** to **Google BigQuery**, enabling a centralised & scalable data infrastructure.

- Transitioned the annual survey (20,000 responses, 40+ schools) to BigQuery + Looker Studio. Increased data reliability and optimised pipelines to **cut cloud costs by 4x**.
- Built data pipelines to process attendance records (16,000 pupils), reducing dashboard load times from **30s to under 5s**.
- Contribution recognized in RLT's receipt of **Google's Excellence in Education Award** for innovative use of cloud technology.

Kayrros, Junior Machine Learning Engineer Paris | Apr 2024 – Jun 2024

Kayrros is a leading climate and energy data analytics scale-up (\$18 million revenue, 130 employees)

- Helped design and implement the architecture for [KayrrosAI](#), a **Claude-powered RAG** that uses text embeddings, and generated SQL queries to retrieve and analyse Kayrros data. (Hosted on AWS)
- Improved test-dataset performance **from 50% to 90%** using prompt engineering, retry loops and pre-processing layers.
- Collaborated with subject experts to create a rigorous benchmark dataset. Used custom LLM evaluation architecture to test.
- Integrated **80+ energy companies'** quarterly financial data using the SEC API

Clear (YC-backed skincare app), AI Intern London | Jul 2022 – Aug 2022

- Helped create an AI model using Tensorflow to measure the severity of acne, deployed using Kubernetes & Flask.
- Optimised model performance through image pre-processing with brightness normalisation and image kernels

Tutor, Maths & CS London | Sep 2022 – present

- **3 years of tutoring experience (400+ hours)**, mentoring students aged 13 to 18 with consistent grade improvements.

Education

Imperial College London, Computing, BEng London | Sep 2023 – present

- Grades: 76% second year, 83% first year. (On track for a First)
- Studied Functional Programming (Haskell & Scala), OOP (Kotlin, Java), Databases (SQL) and Imperative Programming (C)
- **Group projects:**
- Implemented an operating system in C ([Pintos](#)) & an assembler and emulator in C
- Built a [WACC](#) compiler in Scala for both ARM 64 and X86 assembly. (Pintos + WACC grade: 88%)
- Built [ConnectDeeper](#), a Firebase + React app, to promote deeper friendships through daily prompts.

City of London School, A-levels & GCSEs London | Sep 2015 – Jul 2023

- **A-levels:** Maths (94%), Further Maths, Physics (92%) and Economics (4 A*); **GCSE:** 11× Grade 9
- Self-taught uni courses: *Intro to Python* (MIT), *Intro to ML* (Stanford), *CS50 Web Deve and AI* (Harvard) [Code](#)

Projects

Truckle Developer Nov 2023 – Jul 2024

- Part of a society helping farmers deliver crops to market in Rwanda through a cart and SMS system.
- Used Python and SQL to develop SMS capabilities matching clients and drivers

Head of iGEM Website Aug 2021 – Jun 2022

- [iGEM](#) is an international synthetic biology competition between top high schools and universities
- Led a team of 3 web designers, creating a fully responsive website using React to showcase our project (a novel test for pre-eclampsia that won Gold)
- Gained experience in team leadership and delivering a large project on time.

Hackathons

- **ICHack 25 (Europe's largest student-run Hackathon):** Built a Flask homework app helping teachers monitor AI usage through chat histories and progress reports.
- **ICHack 24:** Built a Django web app enabling students to hire tutors per question, improving flexibility and cost-efficiency.
- **IBM Z Datathon:** Developed a tool to rank and display personalised housing area recommendations. (Python, Folium)

Volunteering

City of London School, Chair of Charity

London | Sep 2021 – Jul 2022

- Led the annual charity appeal, raising £65,000 for Papyrus (up 45% YoY)
- Coordinated a 16-member student committee to organise fundraising events to encourage involvement from pupils, parents, and staff

Bow Foodbank, Volunteer

London | Oct 2016 – Oct 2024

- Accumulated over 250 volunteer hours, working in teams to receive, organise and stock food deliveries

Action Tutoring & IntoUniversity, Volunteer Tutor

London | Oct 2021 – Jun 2025

- Provided weekly academic support to disadvantaged students.

References

Clement Giron, Tech Lead & R&D Data Scientist, Kayrros

Jul 2024

"I greatly appreciated working with Arthur at Kayrros. He is a fast learner who delivered production-ready code during a short internship. His autonomy and innovative problem-solving skills are impressive. I recommend him heartily."

Hobbies

Competitive climber & water polo player for Imperial (also water polo social sec). Raised £1k+ by running the Hackney Half, training for the York marathon.