

DIOGO PERALTA CORDEIRO

Software engineer focused on backend systems, infrastructure and product delivery

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Computer scientist and software engineer completing a PhD in Computer Engineering, with C++ as the main language throughout the doctorate and 8+ years across open-source platforms, dependable systems, spatial interaction, mentoring and technical teaching.

TECHNICAL SKILLS

Core programming.

- **C++:** primary language throughout the PhD, including spatial-interaction runtimes and systems architecture.
- PHP and SQL: production applications, open-source platforms and data models.
- Python: research, experimentation, data analysis and tooling.
- C, Java, JavaScript, Haskell and Prolog: systems, web and computer-science projects.
- Bash, Linux and Git: daily development and deployment.

Data, optimisation & research.

- Algorithms, data structures, optimisation: CS/research foundations
- Computer vision and machine perception: doctoral/research work
- Experimental design and technical reporting: research delivery
- LaTeX and scientific writing: papers/thesis

Delivery & leadership.

- Technical architecture and roadmap ownership: CTO/open-source/founder roles
- Mentoring, code review and documentation: students/contributors
- Stakeholder communication and technical training: client/research settings
- Agile/project planning, risk and milestones: PM foundations

EDUCATION

PhD in Electrical and Computer Engineering 2022–present

Faculty of Engineering, University of Porto

Doctoral research in deployable spatial augmented reality and multi-application systems, implemented primarily in C++ throughout the PhD; supervised by Prof. João Tasso de Figueiredo Borges de Sousa.

BSc in Computer Science 2017–2022

Faculty of Sciences, University of Porto

Computer Science degree with substantial mathematics, systems, theory, programming, AI, security, networking, databases and interaction-design foundations.

EXPERIENCE

Software Engineer / Applied Scientist

2026–present

Spectaria - spatial interaction platform for museums

Designed a four-layer spatial-interaction platform for museums—Pro-Cam units, physical controls, web authoring and privacy-aware analytics—to move doctoral prototypes toward repeatable installations.

Full-stack Software Engineer / Systems Analyst

2022–2025

Apontamento Cordial

Delivered internal PHP/SQL systems across four layers—data models, backend logic, administration and reporting—turning operational constraints into maintainable workflows and training.

Lead Software Engineer / Maintainer

2019–2022

GNU social – free-software social networking platform

Led the EU Horizon 2020-funded GNU social v3 rewrite, replacing legacy PEAR-era foundations with Symfony while coordinating architecture, accessibility, plugins, releases and contributor delivery.

Mentor / Director of Studies

2019–2021

GNU social

Mentored 13 students across Google Summer of Code, a community-funded programme and FEUP: four GSoC developers, one community participant and eight software-engineering students.

Co-founder & CTO

2020–2022

Kult – venture-backed social-discovery startup (UPTEC)

Co-founded and led a social-discovery startup as CTO, securing two competitive grants while owning product architecture, the engineering roadmap and delivery at UPTEC.

Robotics Engineer (research internship)

Aug–Oct 2020

Underwater Systems and Technology Laboratory (LSTS), FEUP

At LSTS/FEUP, developed a low-cost autonomous surface vehicle and docking approach under an FCT research grant, combining vector-field guidance, camera tracking, IMU, GPS and Raspberry Pi 4.

SOFTWARE & PROJECTS

SotA Lens

2026

An open-source toolkit for exploratory literature mapping through citation networks. A Python pipeline turns scholarly metadata into inspectable graphs and browser-ready datasets; a static explorer keeps local files in the browser.

MinuteArc

16 November 2025

A focused weekly time and task tracker with goals, streaks, manual corrections, a live timer, reports, exports and team workspaces. The current launch has no billing, paywall or trial countdown.