

PEDRO FONSECA

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PROFESSIONAL SUMMARY

I'm a software engineer based in Porto, Portugal, currently pursuing an MSc at FEUP in Software Engineering and Artificial Intelligence, with an expected graduation in June 2025. With a passion for solving complex problems and delivering innovative solutions, I have developed a strong foundation through diverse projects and collaborations. Combining technical expertise with excellent communication and teamwork, I am eager to contribute to digital transformation and modernization efforts as a digital consultant/associate.

KEY SKILLS

Technical Skills: Excel, Powerpoint, Python, JavaScript, SQL (PostgreSQL, SQLite), Java, C++, React/React-Native, Next.js, Django, MongoDB, Docker, Git.

Soft Skills: Communication, Teamwork, Leadership, Problem-Solving, Critical Thinking, Project Management, Adaptability, Initiative, Innovation, Organizational Skills, Creativity

EDUCATION

Faculty of Engineering, University of Porto Porto, Portugal
MSc in Informatics Engineering & Computing - Current GPA: 17 Sep 2023 – Jun 2025

- **Specializations:** Software Engineering & Artificial Intelligence (Scrum, Requirements Engineering, Deep Learning, Neural Networks)

Politecnico di Milano Milan, Italy
Semester Abroad (ERASMUS) Sep 2024 – Feb 2024

- Engineering and Technology, ranked 23rd globally for these disciplines.

Faculty of Engineering, University of Porto Porto, Portugal
BSc in Informatics Engineering & Computing - GPA: 16 Sep 2020 – Jun 2023

Colégio 'Nossa Senhora do Rosário' Porto, Portugal
High School Diploma (Science & Technology) - GPA: 19 Sep 2017 – Jul 2020

EXPERIENCE

Freelance Consultant Jan 2023 – Dec 2024
Self-Employed Porto, Portugal

- Guided Pressmedia's digital transformation, improving IT infrastructure and CRM efficiency:
 - * Built CRM solutions using Notion and Excel.
 - * Enhanced collaboration and tracking efficiency for business processes.
- Increased website traffic by 300%, as measured by Cloudflare, through SEO and content strategy.
- Advised on leveraging LLM-powered tools to expand into digital marketing and enhance service offerings.
- Collaborated with clients via in-person meetings, emails, and phone calls; tracked requirements and progress using GitHub for software development projects.

Software Engineering Intern Jan 2023 – Jun 2023
Armis Group Porto, Portugal

- Developed and implemented advanced machine learning algorithms for transaction categorization, achieving 85% accuracy using unsupervised learning.
- Integrated the categorization system into a banking application, ensuring a smooth user experience.
- Contributed to fintech innovation (using Python, React and Azure) and authored a dissertation on expense pattern detection.

Co-Founder & Head of Engineering

Sep 2021 - Sep 2023

North Space

Porto, Portugal

- Expanded the organization from 3 to 15 members, fostering collaboration and technical innovation.
- Led hands-on project (EUROC) in rocketry research and engineering, partnering with ISEP.

Co-Founder

Sep 2019 - Sep 2021

SatEmLat

Porto, Portugal

- Developed sensors, communication protocols, and ground-station software for can-sized satellites.
- Won awards for **Best Teamwork** and **Best Technical Performance** at the CANSAT competition.
- Executed stress tests on the satellite to ensure survival and produced live graphical data representation during flight.

PROJECTS

Automated Acceptance Testing for Mobile Apps | *Collaboration w/ Critical Techworks* Sep 2024 – Jun 2025

- MSc thesis combining Software Engineering and AI to streamline acceptance testing processes.
- Leveraging GPT-4 or LLaMA 3.3 to generate Gherkin Acceptance Tests and executable test code using Flutter Driver.
- Aiming to significantly reduce developer time spent on writing tests, employing cutting-edge LLM technology.

Vaxpred | *Product Owner*

Sep 2023 – Feb 2024

- Managed a team of 24 to develop a systems-immunology platform for vaccine efficacy prediction.
- Successfully gathered requirements using interviews, laddering, and brainstorming.
- Followed Scrum methodology for a successful development environment.

ZAAI - Genesys | *Team Leader*

Feb 2024 – Jun 2024

- Directed the development of a retrieval-augmented generative AI system for document interaction.
- Designed features such as document indexing, PDF readers, and graph-based visualizations.
- Leveraged GPT-4, Llama, and Falcon models to optimize proprietary content utilization, achieving 40% reduction in routine inquiry calls.

OTHER

Languages: English (C1), Portuguese (Native)

Certificates: Cambridge Advanced English - 2019 (Level B - C1), Driver's License

Activities: Volunteering at Espaço Raiz; Programming/Excel Tutor

Additional Information: Willing to relocate to Lisbon, Portugal