

Diogo Ferreira

ENTREPRENEURSHIP · TECH LEAD · NETWORK EXPERT · CLOUD TECHNOLOGY · PRODUCT DEVELOPMENT · PROTOCOL DESIGNER · SOFTWARE ARCHITECT

Porto, Portugal

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Summary

I have more than 12 years of industry experience in technology, product, and engineering management with solid know-how in adopting software methodologies, agility, and innovation. As a tech entrepreneur, I am capable of transforming business needs from C-Level, Investors, and Customers, into technical products. I have founded two startups, one of which was sold to an industry leader.

I have management and hands-on experience with various areas and technologies: network protocols, system design, distributed systems, cloud, and mobile. Additionally, I possess unique knowledge of network coding techniques. I love to build ground-breaking solutions from scratch, with a focus on performance and scalability. I led cross-functional teams towards concrete objectives, focused on delivery with quality, especially under conditions of uncertainty. I am always interested in embracing new challenges in complex environments, involving different stakeholders. I am results-oriented, creative, hands-on, and a decision-maker by nature.

I love technology, problem-solving is in my heart and aviation is my passion. I am always eager to learn new things.

Experience

NPAW

Porto, Portugal

DIRECTOR OF ENGINEERING & HEAD OF PLUGINS TEAM

Jun. 2023 - Present

- NPAW is an end-to-end video intelligence solution for streaming services leader in the video industry with 200+ customers.
- Responsible for engineering leadership, product development, and solution architecture, for the Delivery Business Unit (unit in charge of all video delivery solutions), including an advanced multi-CDN management tool for video streaming, Active Switching.
- Active Switching won the award Product of the Year for Connected TV at NAB 2024.
- Responsible for engineering leadership and solution architecture, for the Plugins Team, where a new plugin SDK was developed to include and integrate all major NPAW products into a single unified plugin.
- Ensure all departments and stakeholders are aligned and with the necessary knowledge of the product and how the product works, by being the face to Customer Engineers, Customer Success Managers, and Sales team.
- Implemented major corporate-wide key quality assurance processes, directly into the delivery cycle, to reduce customer's pains and complaints.
- Led an engineering team of 8 people.
- Company's public face for the video delivery and video analytics industry, with a presence in major trade shows, such as IBC and NAB.

Codavel

Porto, Portugal

CTO & Co-FOUNDER

Apr. 2018 - Jun. 2023

- Codavel is a CDN for mobile apps that proved to be significantly faster than major CDNs. Codavel improves the user experience in mobile apps, leading to higher conversion rates and user retention, and longer user sessions.
- Responsible for building a great CDN, with the best performance and at the cheapest price.
- Responsible for engineering leadership, product development, and solution architecture.
- Development of an end-to-end protocol (Bolina), based on network coding, to improve data transfer speed and efficiency over unstable wireless links, such as WiFi or cellular. Bolina enables mobile services to fetch content in a faster way and to improve its end-user experience.
- Development and implementation of a new CDN (Content Distribution Network), from scratch. Codavel CDN relied on Bolina protocol to ensure faster data transfers when compared to legacy CDN.
- Built and led an engineering team of 20 people from scratch.
- Co-inventor of the core technology used at Codavel.
- Nominated for the Top 10 Most Disruptive Startups (Connectivity & Data track) at South Summit 2021.
- Helped raise a total of €2,9M of venture capital investment.

Streambolico

Porto, Portugal

CTO & Co-FOUNDER

Mar. 2012 - Apr. 2018

- Streambolico developed a solution for scalable video streaming over WiFi, in particular for high user density scenarios.
- Achieved multiple successful deployments in the European sports venue market.
- Responsible for engineering leadership, product development and solution architecture.
- Development of network coding solutions for efficient and reliable real-time content distribution with delay constraints over multicast for hyper-crowded wireless networks.
- Built and led an engineering team of 8 people from scratch.
- Co-inventor of the core technology used at Streambolico.
- Grand prize winners of the Concurso Nacional de Inovação BES 2012, one of the most prestigious Portuguese prizes for awarding innovation.
- Helped raise a total of €1.7M of venture capital investment.

OTHER EXPERIENCE

Telecommunications Institute (IT)

RESEARCHER

Porto, Portugal

Oct. 2006 - Jun. 2015

- Development and implementation of a protocol for efficient and reliable real-time content distribution with delay constraints over wireless networks.
- Development and management of a network coding simulator: NECO.
- Development of secure routing protocols for mobile wireless networks.
- Supervisor: Professor João Barros

Telefonica I+D

INTERN

Barcelona, Spain

Aug. 2010 - Oct. 2010

- Design and development of network coding based protocols for video streaming under p2p networks.
- Supervisor: Dr. Alberto Toledo

NTT Docomo Euro-Labs

INTERN

Munich, Germany

Apr. 2009 - Jun. 2009

- Design and development of feedback schemes and reliable distribution protocols for video streaming in wireless networks.
- Supervisor: Dr. Joerg Widmer

FCUP (Faculdade de Ciências da Universidade do Porto)

TEACHING ASSISTANT

Porto, Portugal

Sep. 2007 - Dec. 2007

- *Introduction to Programming*: in charge of the practical lectures. First year course for computer science, mathematics and biology areas.

Education

PhD Candidate in Telecommunications

FEUP (UNIVERSITY OF PORTO, SCHOOL OF ENGINEERING)

Porto, Portugal

Sep. 2009 - Jun. 2015

- Phd Student under the orientation of Professor João Barros
- Awarded fellowship from FCT (Portuguese National Science Foundation)

MSc in Computer Science and Network Engineering

FCUP (UNIVERSITY OF PORTO, SCHOOL OF SCIENCES)

Porto, Portugal

Sep. 2007 - Jun. 2009

- MSc thesis: A Performance Evaluation of Network Coding

BSc in Computer Science and Network Engineering

FCUP (UNIVERSITY OF PORTO, SCHOOL OF SCIENCES)

Porto, Portugal

Sep. 2004 - Jun. 2007

Honors & Awards

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|------|---|------------------|
| 2024 | NAB - Product of the Year, Connected TV , with Active Switching | Las Vegas, USA |
| 2021 | South Summit - Codavel at the Top 10 Most Disruptive Startups , Track: Connectivity & Data | Madrid, Spain |
| 2012 | Grand Prize Winner of Concurso Nacional de Inovação BES , one of the most prestigious innovation awards in Portugal, as a co-founder of Streambolico | Lisbon, Portugal |
| 2009 | Doctoral Fellowship , from FCT (Portuguese Foundation for Science and Technology) | Portugal |

Skills

Languages	Portuguese (native), English (proficient) and Spanish (general knowledge)
Expertise	Tech Lead, Team Management, Software Management, Product Development, Solutions Architecture, Technology Sales
Fields of Expertise	Video Streaming, App Performance, Cloud Architecture, Network Protocols, Security
Programming	Python, C/C++, Java, Kotlin, Javascript/Typescript, Swift, Node.js, Bash Script, LaTeX, PHP
Back-end	Express, Django, REST API
Front-end	Vue.js, Vuepress, Hugo, React
Cloud & DevOps	Docker, Kubernetes, Rancher, Terraform, NGINX, Varnish, AWS, GCP, Azure, DigitalOcean, Linode, Oracle Cloud
Data Analysis	Elastic, Kibana, Graphana, OpenSearch, Prometheus

Publications & Talks

PATENTS

- 2014 **Rui A. Costa, Diogo Ferreira, João Barros, "Method and apparatus for feedback-based real-time network coding",** *US Patent 9,602,246*
EU Patent 2,751,943

JOURNAL PAPERS

- 2014 **Diogo Ferreira, Rui A. Costa, João Barros, "Real-time network coding for live streaming in hyper-dense WiFi spaces",** IEEE Journal on Selected Areas in Communications

CONFERENCE PAPERS

- 2009 **D. Ferreira, L. Lima, J. Barros, "Network Coding Protocols: Does Topology Matter?",** Future Internet Workshop 2009 *Santander, Spain*
- 2009 **D. Ferreira, L. Lima, J. Barros, "NECO: Networking CODing Simulator",** SIMU-Tools'09 *Rome, Italy*
- 2009 **D. Ferreira, L. Lima, J. Barros, "Network Coding in Wireless Topologies",** IJUP'09 *Porto, Portugal*

INVITED TALKS

- 2010 **Usages of Future Internet Research and Experimentation (FIRE) facilities,** FIRE conference *Ghent, Belgium*

References

- Rui Costa** My Co-Founder and the CEO at both Codavel and Streambolico
[LinkedIn](#) • oruicosta@gmail.com • +351 916 847 473
- Miguel Lucas** Software Engineering I hired for Codavel, working under my direct supervision
[LinkedIn](#) • cmiguel.lucas@gmail.com • +351 915 197 634
- João Barros** Professor at CMU, Founder at Veniam (acquired by Nexar), IEEE Fellow. João was my Ph.D. Advisor
[LinkedIn](#) • cmiguel.lucas@gmail.com • +351 917 143 731
- João Almeida** Head of Product hired for Codavel, where we worked together.
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