Curriculum Vitae

Carlos Henrique Cabral Duarte

November 17, 2026

Executive Summary

Carlos Henrique Cabral Duarte

- PhD in Computer Science (Imperial College, London) with over 35 years of experience at the intersection of industrial development, public policy, and software engineering.
- Senior member of staff at the Brazilian Development Bank (BNDES), with a track record in financing innovation, supporting digital transformation, and shaping Brazil's Information and Communication Technology (ICT) industry.
- Active internationally in the role of IEEE Distinguished Contributor as a researcher, author, reviewer, and editor, with publications in leading journals.
- Proven ability to bridge academia, government, and industry, contributing to policy design, R&D coordination, and technology transfer.

1 - Identification

1. Name: Carlos Henrique Cabral Duarte
2. Date of birth: July 1, 1970
3. City of birth: Juiz de Fora, MG, Brazil
4. Nationality: Brazilian and Portuguese citizen
5. Marital status: Married

2 - Current Position and Contact Data

1. Profession: Member of Staff, University Professor
2. Commercial address: Brazilian Development Bank (BNDES)
   Av. República do Chile 100, Centro
   Rio de Janeiro, RJ, Brazil, 20031-917
3. Residential address: Rua São João Batista 27/903, Botafogo
   Rio de Janeiro, RJ, Brazil, 22270-030
4. Telephone numbers: +55 (21) 3747-8143 (office),
   +55 (21) 98518-7838 (mobile),
   +55 (21) 3497-7838 (residence)
5. E-mail: `cduarte@bndes.gov.br`; `carlos.duarte@computer.org`
6. Web page: `http://www.bndes.gov.br`; `http://www.chcduarte.com`
7. ORCID ID: `https://orcid.org/0000-0002-9881-1527`

3 - Key Achievements

- As a BNDES manager, drove financing for 60+ ICT companies, directly supporting the expansion of Brazil's ICT sector.
- Played a key role in the IPO journey of two ERP firms listed on the Brazilian Stock Exchange.
- Evaluated accreditation requests from 700+ manufacturers under the BNDES local content framework.
- Contributed to UNSD and OECD-aligned statistical compliance initiatives at IBGE.
- Active contributor to Brazilian ICT policy discussions, including CATI and Softex forums.
- Recognised as an IEEE Computer Society Distinguished Contributor in 2022.

4 - Professional Experience

4.1 - R&D and Financing

1. *Member of Technical Staff* (since 1992, *senior* since 2017)[1]
   Brazilian National Economic and Social Development Bank – BNDES
   Address: Av. República do Chile, 100, Centro
   Rio de Janeiro, RJ, Brazil, 20001-970
   Weekly journey: 35 hours

   Professional History:

   - Productive Development and Innovation Division – AI
     Department of Capital and Consumer Goods Industries, Commerce and Services – DEIND
     Period: 2024-
     Role: Sectoral Studies Specialist
   - Foreign Trade Division – AEX
     Department of Capital and Durable Consumer Goods Export Promotion – DECEX3
     Period: 2018-2020
     Role: Foreign Trade Financing Analyst
   - Indirect Operations Division – AOI / Strategic Planning Division – AP
     Department of Local Content and Accreditation – DECRED
     Period: 2012-2018
     Role: Accreditation Analyst
   - National Information Technology Committee – CATI
     Period: 2003-2012
     Role: Board Member (representative of BNDES)
   - Society for the Promotion of Brazilian Software Excellence – Softex Society
     Period: 2003-2012
     Role: Deputy Board Member (representative of BNDES)

[1] Contract interrupted between 10/1994 and 09/1998.

- Working Group to Plan the Attraction of Investments in the Local Integrated Circuit Industry
  Period: 2003-2012
  Role: Member (as a BNDES employer)
- Industry Division – AI
  Information Technology Department – DETIC
  Period: 2003-2012
  Role: Operations Manager and Deputy Head of Department
- Telecommunications and Logistics Division – ALT
  Electronics Complex Department – GECEL
  Period: 2002
  Role: Accounts Manager
- Operations Division 1 – AO1
  Department of Software Operations – GSOFT
  Period: 1998-2001
  Role: Financial Analyst
- Administration and Human Resources Division – AA
  Department of Systems – DESIS
  Period: 1993-1994
  Role: Systems Analyst

Description:
As a systems analyst at BNDES from January 1993 to August 1994, I developed new functionalities for the credit operations system and spearheaded a solution that enabled staff to monitor and evaluate financed projects. Subsequently, I led post-deployment training and adapted parts of the system for an operational environment using just computer networks.

In this period, I helped to standardise software development activities at the bank. Our team's dedication to putting these standards into practice led us to develop a new software development approach that focused on software component reuse and rapid prototyping. This approach proved so successful that it was used for more than a decade.

After returning to BNDES in 1998 from my PhD studies, I held several roles – technical staff member, financing manager, and, ultimately, deputy head of the Information Technology financing department. Throughout, I supported the growth of the Brazilian software industry by designing and implementing new financing instruments. My responsibilities included visiting ICT companies, guiding the development of business plans, evaluating their feasibility, and recommending viable plans for bank financing. Thanks to these efforts, more than fifty software companies secured funding to implement their business plans, most of which was provided through credit. Among these, I helped two medium-sized enterprise resource planning software companies grow to the point where they were listed on the Brazilian Stock Exchange. I played a similar role in financing non-profit R&D organisations of the Information and Communication Technology sector.

After being relieved of my managerial role in 2012, I took on the roles of accreditation analyst and later export financing analyst. As an accreditation analyst, I assessed machinery, equipment, systems, and components to determine whether they met the BNDES funding requirements. In this role, I handled accreditation requests from over 700 firms. Finally, in the most recent years, since 2024, after returning to BNDES from a period

working for IBGE, I have been a sectoral studies specialist, in charge of studying the capital goods industry and other related economic sectors.

2. *Temporary Member of Technical Staff* (2020-2024)[2]
Brazilian Institute of Geography and Statistics – IBGE
Address: Av. República do Chile, 500, Centro
Rio de Janeiro, RJ, Brazil, 20031-170
Weekly journey: 35 hours

Professional History:

- Directorate of Research – DPE
Period: 2020-2024
Role: Advisement Staff

Description:
I served the Directorate of Research at IBGE in a pivotal role, supporting economic research activities, fostering greater integration and coordination, and facilitating partnerships with other institutions. My work involved providing valuable support to the Economic Area Committee. This internal body oversees the planning, monitoring, and review of economic research activities. It proposes objectives and targets for the organisation's strategic planning. I was also appointed as a member of two working groups: the first to discuss the compliance of the National Statistical System with the OECD Recommendations for Good Statistical Practices, and the second to support IBGE's work on the compilation of the UN Sustainable Development indicators.

3. *Scientific Programmer* (1989-1992[3])
Brazilian Farming and Cattle Breeding Research Company – EMBRAPA
Dairy Cattle Research Centre – CNPGL
Quantitative Methods Sector – SMQ
Address: Rua Eugênio do Nascimento, 610, Dom Bosco
Juiz de Fora, MG, Brazil, 36088-330
Weekly journey: 40 hours

Description:
The SMQ mission was to enhance the genetic quality of dairy cattle in Brazil. As a team member, I was responsible for developing software to collect and analyse data from dairy cattle cooperatives and breeder associations across the country. Despite the lack of a nationwide computer network at the time, we designed a system that enabled data exchange by post. Our client applications were hosted on IBM PCs and a Unix server was used to analyse the collected data and perform statistical analyses. I was heavily involved in every aspect of the system's analysis, design, and implementation.

In addition to my software development work, I supervised a trainee. I helped standardise data across the country by organising a national meeting among breeding association representatives. As the project progressed, I also trained users, configured and installed equipment and software, and participated in a critical meeting with the Inter-American Development Bank (IDB) to discuss potential external funding for the National Information System for Farming and Cattle Breeding Research.

[2]Temporary work assignment away from BNDES.
[3]Contract interrupted between 03/1992 and 12/1992.

4.2 - Short-term Jobs and Visits

1. *Visiting researcher* (08-10/1995)
   Intelligent Network Platform Department – INDP
   Hewett-Packard Laboratories, Bristol – HPLB
   Address: Filton Road, Stoke Giford
   Bristol, UK, BS12 6QZ
   Supervisor: Dr Martin Sadler
   Weekly journey: 39 hours

2. *Computer programmer (intern)* (05-11/1988)
   Data Processing Center – CPD
   Federal University of Juiz de Fora – UFJF
   Address: Barão Geraldo
   Juiz de Fora, MG, Brazil, 36016-970
   Supervisor: Prof. Dr. Guilherme Horta Travassos (COPPE/RJ)
   Weekly journey: 12 hours

4.3 - Teaching

1. *Lecturer* and *Academic Coordinator of Programming Language Disciplines*:
   Information Systems Undergraduate Course (2001–2009)
   Institution: Department of Informatics
   University Estácio de Sá (UNESA)
   Address: Rua do Bispo 83, Rio Comprido
   Rio de Janeiro, RJ, Brazil, 20261-902
   Weekly Journey: 12 hours
   Type: BSc course

2. *Part-Time Lecturer*: Distributed Systems (09-12/1999)
   Institution: Department of Systems and Computing Engineering – DE-9
   Military Institute of Engineering – IME
   Address: Praça General Tiburcio 80, Urca
   Rio de Janeiro, RJ, Brazil, 22290-270
   Journey: 52 hours
   Type: MSc course

3. *Temporary Lecturer*: Compiler Construction (07-08/1999)
   Institution: Department of Computer Science – DCC
   Federal University of Juiz de Fora – UFJF
   Address: Barão Geraldo
   Juiz de Fora, MG, Brazil, 36016-970
   Journey: 60 hours
   Type: BSc course

4. *Teaching assistant* (1996-1998):
   Institution: Imperial College, Department of Computing
   Address: Huxley Building, 180 Queen's Gate
   London, UK, SW7 2BZ
   Journey: 4 hours
   Type: Many BSc and MSc courses

5. *Lecturer*: Logical Design of Database Systems (12/1992)
   Institution: Brazilian Petroleum S.A. – PETROBRÁS
   Address: Southeast Human Resources Development Centre – CEN-SUD
   Rua General Canabarros, 500, Tijuca
   Rio de Janeiro, RJ, Brazil, 20271-201
   Journey: 24 hours
   Type: Short-term graduate course

5 - Education

1. Postgraduate studies (1994-1999):
   Department of Computing, Imperial College, London, UK
   Degree: PhD in Computer Science
   Adviser: Prof. Dr Thomas Stephen Edward Maibaum

2. Postgraduate studies (1992-1994):
   Department of Informatics
   Pontifical Catholic University of Rio de Janeiro (PUC-Rio), RJ, Brazil
   Degree: MSc in Informatics
   Adviser: Prof. Dr Roberto Ierusalimschy
   Final G.P.A.: 9.7

3. Undergraduate studies (1988-1992):
   Department of Mathematics
   Federal University of Juiz de Fora (UFJF), MG, Brazil
   Degree: BMath with a major in Informatics
   Adviser: Prof. Dr Michel Heluey Fortuna
   Final G.P.A.: 7.7

4. Primary and secondary school (1974-1987):
   Colégio dos Jesuítas, Juiz de Fora, MG, Brazil

6 - Languages

1. *Portuguese*: Native.

2. *English*: Fluent (C2).

3. *Spanish and German*: Intermediate reading and conversation (A2).

4. *French*: Basic comprehension (A1).

7 - Research

1. *Research Fellow*: I was a fellow of the Brazilian National Research Council from April 2001 to March 2003 (CNPq 2C). The title of my research project was "Methods, Techniques and Tools for Rigorous Development of Open Distributed Systems".

2. *Invited Speaker:* I was invited to give talks in the following scientific events:

(a) 39th IEEE Concapan Conference (Guatemala City, GT, 22/11/2019) (keynote);

(b) Tekhne 2018 Conference (Morelia, MX, 22/10/2018) (keynote);

(c) 16th Brazilian Symposium on Software Quality (SBQS), Brazilian Computing Society (Rio de Janeiro, BR, 28/08/2017) (keynote);

(d) 13th Workshop of the Brazilian Software Process Improvement Model (WAMPS), Softex Society (Rio de Janeiro, BR, 27/09/2017);

(e) Implementation Seminar of the Technology, Quality and Certification Network on Information Technology (TSQC), Information Technology Center (CTI, Campinas, BR, 06/06/2003).

(f) 10th Software Productivity and Quality Workshop (WQPS), Brazilian Program for Software Quality and Productivity (PBQP-SW, Brasília, BR, 08/05/2003);

I was also invited to give talks at the following occasions:

(a) IEEE Computer Society Future Technology Series Webinar (Internet, 30/09/2026);

(b) IEEE Denver Section, USA (Internet, 11/03/2021);

(c) IEEE Computer Society Distinguished Lecturer Webinar (Internet, 13/08/2020): available at `https://youtu.be/9EEAfHsdSR0`

(d) Universidad de San Carlos de Guatemala, IEEE Guatemala Section (GT, 21/11/2019);

(e) Universidad Galileo, IEEE Guatemala Section (Guatemala City, GT, 20/11/2019);

(f) Faculdade SENAC de Tecnologia (Rio de Janeiro, BR, 19/06/2019);

(g) Technical University of Morelia, IEEE Centro Occidente Section (MX, 23/10/2018);

(h) Universidad Michoacana de San Nicolás de Hidalgo, IEEE Centro Occidente Section (Morelia, MX, 22/10/2018);

(i) University of Campinas (BR, 22/06/2018);

(j) Brazilian-German Chamber of Commerce and Industry (AHK, Rio de Janeiro, BR, 08/03/2018);

(k) Brazilian Association of Software Companies (ABES, São Paulo, BR, 14/09/2009);

(l) Amazônia Bank (BASA, Belém, BR, 02/07/2007);

(m) Federation of Brazilian Information Technology Companies (Assespro, Aracajú, BR, 23/11/2003);

(n) Pontifical Catholic University of Rio de Janeiro (PUC-Rio, BR, 30/06/2003)

(o) Federal University of Rio de Janeiro (UFRJ, BR, 14/06/1999);

(p) Federal University of Juiz de Fora, (UFJF, BR, 13/11/1998 and 02/10/2000);

(q) University of Birmingham (UK, 14/03/1997);

3. *Guest Speaker:* I presented unpublished scientific work in the following events:

(a) Thematic Network Workshop of the European Community 5th Research Framework (EUROLAT-IS) (Rio de Janeiro, BR, 2000);

(b) 4th Imperial College Theory and Formal Methods Session Workshop (TFM) (Bath, UK, 1998);

(c) 2nd International Workshop on Information Systems: Correctness and Reusability (ISCORE) (Evry, FR, 1995).

4. *Participation in Examining and Judgment Boards:*

   (a) *The Influence of Factors on Software Development Productivity According to a Model of Theoretical Structures* (12/2018)
   Institution: Institute for Graduate Studies and Research in Engineering (COPPE)
   Federal University of Rio de Janeiro (UFRJ)
   Type of participation: External examiner
   Type of work: PhD thesis in Portuguese
   Candidate: Wladmir Araújo Chapetta

   (b) *Integral Equations via Domain-Theory* (07/2008)
   Institution: Polytechnic Institute, State University of Rio de Janeiro (UERJ)
   Type of participation: External examiner
   Type of work: PhD thesis in Portuguese
   Candidate: Antônio Espósito Junior

   (c) *Credit Analysis using Artificial Intelligence with Validation Data from the BNDES Credit Card* (03/2008)
   Institution: Polytechnic Institute, State University of Rio de Janeiro (UERJ)
   Type of participation: External examiner
   Type of work: PhD thesis in Portuguese
   Candidate: Oswaldo Luiz Humbert Fonseca

   (d) *Corporate Credit Risk Analysis based on Artificial Neural Networks* (07/2003)
   Institution: Informatics course, University Estácio de Sá
   Type of participation: Student supervisor and board chair
   Type of work: BSc dissertation in Portuguese
   Candidate: Inah Garritano

   (e) *A Software Artefact Generator Production Process* (08/2000)
   Institution: Department of Informatics, PUC-Rio
   Type of participation: Deputy external examiner
   Type of work: PhD thesis in Portuguese
   Candidate: Luiz Paulo Alves França

   (f) *COJEM – Young Software Entrepreneur National Award* (12/1998)
   Institution: Softex Society / Fumsoft
   Type of participation: Judgment board member as BNDES representative
   Type of work: Business plans in Portuguese
   Candidates: Software companies generated within the Softex System

   (g) *ASSESPRO Award – Best Brazilian Software in 1993* (07/1994)
   Institution: Association of Software Companies and Data Processing Services
   Type of participation: Judgment board member as BNDES representative
   Type of work: Brazilian software produced in 1993
   Candidates: Brazilian software companies

   (h) *A Process Model for Scientific Software Development* (08/1993)
   Institution: Mathematics course, UFJF
   Type of participation: Student supervisor and board chair
   Type of work: BSc dissertation in Portuguese
   Candidate: Adilson Luiz Fernandes

5. *Event Organisation and/or Participation:*

   (a) *1st-2nd International Conference on AI-based Software Engineering for Digital Services* (AISED 2025-2026)
   Location: Nice, France (2025); Lisbon, Portugal (2026).
   Type of participation: Scientific Board Member (2025-2026), Author (2026) and Panelist (2026).

   (b) *5th International Conference on AI Engineering - Software Engineering for AI* (CAIN 2026)
   Location: Rio de Janeiro, Brazil (2026).
   Type of participation: Organising Committee Member and Industry Liaison Co-Chair.

   (c) *22-28th and 30-32th IEEE International Requirements Engineering Conference* (RE 2014-2020 and 2022-2024)
   Location: Karlskrona, Sweden (2014); Ottawa, Canada (2015); Beijing, China (2016); Lisboa, Portugal (2017); Banff, Canada (2018); Seul, South Korea (2019); Zurich, Switzerland and Online (2020); Melbourne, Australia and Online (2022); Hannover, Germany and Online (2023); Reykjavik, Iceland (2024).
   Type of participation: Industry Program Committee Co-chair (2016), Panel Organizer (2015-2026) and Industry Program Committee Member.

   (d) *5-8th International Conference on Digital Economy* (ICDEc 2020-2023)
   Location: Bucharest, Romania and Online (2020); Tallinn, Estonia and Online (2021); Bucharest, Romania and Online (2022); Braga, Portugal and Online (2023).
   Type of participation: Program Committee Member.

   (e) *11-17th International Conference on Software Engineering Advances* (ICSEA 2016-2022)
   Location: Rome, Italy (2016); Athens, Greece (2017); Nice, France (2018); Valencia, Spain (2019); Porto, Portugal and Online (2020); Barcelona, Spain and Online (2021); Lisbon, Portugal and Online (2022).
   Type of participation: Program Committee Member.

   (f) *International Workshop on Managing Quality in Agile and Rapid Software Development Projects* (QuaASD 2019), formerly the *International Workshop on Quality Requirements in Agile Projects* (QuaRAP 2018)
   Location: Barcelona, Spain (2019); Banff, Canada (2018)
   Type of participation: Program Committee Member.

   (g) *IEEE International Workshop on Data-Driven Systems Quality Assurance* (DSQA 2019), formerly the *IEEE International Workshop on Conflicts and Synergies among Reliability, Security and other Qualities* (CSRSQ 2018)
   Location: Sofia, Bulgaria (2019); Lisbon, Portugal (2018)
   Type of participation: Program Committee Member.

   (h) *2nd International Workshop on Just-in-time Requirements Engineering* (JIT RE 2017)
   Location: Lisbon, Portugal (2017)
   Type of participation: Program Committee Member.

   (i) *3rd-4th International Workshop on Conducting Empirical Studies in Industry* (CESI 2014-2015)
   Location: Florence, Italy (2014) and Austin, Texas, USA (2015)

Type of participation: Member of the Organising Committee (2014-2015) and Member of the Advisory Board (2016)

(j) *36th International Conference on Software Engineering* (ICSE 2014)
Location: Hyderabad, India
Type of participation: Panellist and judge of the technologies submitted to the Ready-Set-Transfer Technology Transfer Panel

(k) *21st IEEE International Requirements Engineering Conference* (RE 2013)
Institution: Department of Informatics, Pontifical Catholic University of Rio de Janeiro
Type of participation: Panellist and judge of the technologies submitted to the Ready-Set-Transfer Technology Transfer Panel

(l) *Seminar on the Perspectives of Investment in Brazil* (2009)
Institution: Brazilian National Development Bank – BNDES
Type of participation: Discussant of the study on Information Technology

(m) *International Seminar on the Promotion of Innovation and Intellectual Property in Information Technology* (2008)
Institution: Brazilian National Institute of Intellectual Property – INPI
Type of participation: Organising Committee Member

(n) *1st-2nd National Seminar on the Results of the Information Technology Law* (2003/2006)
Institution: Brazilian National Information Technology Committee – CATI
Type of participation: Moderator of the panels on Medical Equipment (2003) and Mobile Telecommunication Devices (2006)

8 - Professional Service

1. *Editorial Roles:* I have worked in editorial roles in the following cases:
   (a) Sustainability (2026-2027): Member of the Reviewer Board;
   (b) Sage Open (2023-2024): Article Editor;
   (c) Information and Software Technology (2017-2018): Guest Editor;
2. *Referee*: I have done some refereeing for the following journals and magazines:
   (a) Sustainability (2024-2026);
   (b) Science of Computer Programming (2025-2026);
   (c) IEEE Software (2002, 2026);
   (d) AI and Ethics (2026);
   (e) IEEE Computer (2024-2025);
   (f) Software (2023-2025);
   (g) Automated Software Engineering (2025)
   (h) Journal of Risk and Financial Management (2025);
   (i) Sage Open (2021-2024);
   (j) Electronics (2023-2024);
   (k) Modelling (2024);

(l) Informatics (2024);
(m) Applied Sciences (2022-2023);
(n) Systems (2023);
(o) IEEE Access (2017-2022);
(p) IEEE Transactions on Software Engineering (2020);
(q) Requirements Engineering Journal (2018-2019);
(r) Journal of Industrial Information Integration (2017-2018);
(s) Foundations of Computing and Decision Sciences (2018);
(t) Journal of Computational Methods in Sciences and Engineering (2016-2017);
(u) Journal of Systems and Software (2002-2006);
(v) Information Processing Letters (2000-2001);
(w) Higher-Order and Symbolic Computation Journal (1998);
(x) Journal of Logic and Computation (1997-1998).

3. *Reviewer*: I have reviewed papers submitted to the following itinerant events, often as a Program Committee Member:

   (a) International Conference on AI-based Software Engineering for Digital Services (AISED 2025-2026);
   (b) IEEE International Requirements Engineering Conference (RE 2014-2020 and 2022-2024);
   (c) International Conference on Digital Economy (ICDEc 2020-2023);
   (d) International Conference on Software Engineering Advances (ICSEA 2016-2021);
   (e) International Workshop on Quality Requirements in Agile Projects (QuaRAP 2018);
   (f) IEEE International Workshop on Conflicts and Synergies among Reliability, Security, and other Qualities (CSRSQ 2018);
   (g) International Workshop on Just-in-time Requirements Engineering (JIT RE 2017);
   (h) International Workshop on Conducting Empirical Studies in Industry (CESI 2015);
   (i) International Conference on Algebraic Methodology and Software Technology (AMAST 1998);
   (j) International Conference on Fundamental Approaches to Software Engineering (FASE 1998 and 2001);
   (k) International Colloquium on Automata, Languages and Programming (ICALP 1997).

4. *Ad hoc Referee*: I have also worked as an *ad hoc* referee in evaluating R&D and research projects submitted to the following Brazilian funding agencies:

   (a) Brazilian Agency for Industrial Development (ABDI) (Brasília, BR, 2026);
   (b) Brazilian National Coordination of Graduate Level Human Resources Improvement (CAPES) (Brasília, BR, 2010-2014);
   (c) Brazilian National Research Council (CNPq) (Brasília, BR, 1999-2003);
   (d) Foundation of Science and Technology Support of the Pernambuco State (FACEPE) (Recife, BR, 2001);

(e) Araucária Foundation (Curitiba, BR, 2002-2009).

5. *Volunteering Activities*: I have been a member of the Institute of Electrical and Electronics Engineers (IEEE) and the IEEE Computer Society (IEEE CS) for more than 35 years:

   (a) Senior Member: Since 2012;

   (b) Full Member: From 1999 to 2011;

   (c) Student Member: From 1991 to 1998;

   In 2025, I also became a member of the Brazilian Society for the Advancement of Science (SBPC).

9 - Publications and Datasets

9.1 - Publications

9.1.1 - Edited Books, Proceedings and Special Issues of Journals

1. Xavier Franch, Nazim H. Madhavji, and Carlos Henrique C. Duarte. Special session on conducting empirical studies in industry (CESI). *Information and Software Technology*, 98:146–147, 2018. doi:10.1016/j.infsof.2018.03.002.

2. Andreas Jedlitschka, Ayse Bener, Carlos Henrique C. Duarte, and Smita Ghaisas, editors. *Proc. 4th International Workshop on Conducting Empirical Studies in Industry (CESI 2016). Austin, Texas, USA*, May 2016. ISBN 978-1-4503-4154-7.

3. Xavier Franch, Nazim H. Madhavji, and Carlos Henrique C. Duarte, editors. *Proc. 3rd International Workshop on Conducting Empirical Studies in Industry (CESI 2015). Florence, Italy*, May 2015. ISBN 978-1-4673-7028-8.

9.1.2 - Edited Third-Party Publications

1. Jun Zhao and Xiao-yan Liu. ICT, Supply Chain Digital Integration Capability, and Firm Financial Performance: The Antagonistic Effects of Perceived Government Support and Cognitive Constraints on Digital Transformation. *Sage Open* 14:2, April 2024. doi:10.1177/21582440241241887

2. Sofia Sherman, Irit Hadar and Gil Luria. Leveraging Organisational Climate Theory for Understanding Industry-Academia Collaboration. *Information and Software Technology* 98:148–160, June 2018. doi:10.1016/j.infsof.2017.12.006

9.1.3 - Papers in International Journals

1. Carlos Henrique C. Duarte. Authorship and peer-review in the era of artificial intelligence. *IEEE Computer*, 56(12):32–41, December 2023. doi:10.1109/MC.2023.3311729.

2. Carlos Henrique C. Duarte. Alternative views regarding digital transformation and requirements engineering in embedded and cyber physical systems. *IEEE Software*, 39(3): 9–10, May 2022. doi:10.1109/MS.2021.3137431.

3. Carlos Henrique C. Duarte. Software productivity in practice: A systematic mapping study. *MDPI Software*, 1(2):164–214, May 2022. doi:10.3390/software1020008.

4. Meira Levi, Lin Liu, Daniel Amyot, Eric Yu, Muneeg Alshammari, Malak Baslyman, Elizabeth Bjarnason, Christopher Bull, Carlos Henrique C. Duarte, Eduard C. Groen, Sami Jantunen, Sylwia Kopczynska, Lysanne Lessard, Ita Richardson, Jens Weber, and Ziqi Wei. Requirements engineering for well-being, aging, and health: An overview for practitioners. *IEEE Software*, 38(3):7–12, 2021. doi:10.1109/MS.2021.3058492.

5. Carlos Henrique C. Duarte. On what goes on with goal-oriented healthcare equipment regulations: An exploratory case study on the diagnostic imaging equipment industry in Brazil. *IEEE Access*, 8(1):58559–58574, 2020. doi:10.1109/ACCESS.2020.2982031.

6. Christof Ebert and Carlos Henrique C. Duarte. Digital transformation. *IEEE Software*, 34(4):16–21, July 2018. doi:10.1109/MS.2018.2801537.

7. Carlos Henrique C. Duarte, Andreas Jedlitschka, and Ayse Bener. 4th International workshop on conducting empirical studies in industry (CESI 2016): Post-workshop report. *ACM SIGSOFT Software Engineering Notes*, 42(2):15–18, 2017. doi:10.1145/3089649.3089655.

8. Carlos Henrique C. Duarte. Productivity paradoxes revisited: Assessing the relationship between quality maturity levels and labor productivity in Brazilian software companies. *Empirical Software Engineering*, 22(2):818–847, April 2017. doi:10.1007/s10664-016-9453-5

9. Carlos Henrique C. Duarte, Xavier Franch, and Nazim H. Madhavji. 3rd International workshop on conducting empirical studies in industry (CESI 2015): Post-workshop report. *ACM SIGSOFT Software Engineering Notes*, 40(5):26–29, 2015. doi:10.1145/2815021.2815033.

10. Carlos Henrique C. Duarte. Brazil: Cooperative development of a software industry. *IEEE Software*, 19(3):84–87, May 2002. doi:10.1109/MS.2002.1003461.

11. Carlos Henrique C. Duarte and Tom Maibaum. A branching-time logical system for open distributed systems development. *Electronic Notes on Theoretical Computer Science*, 67: 184–203, 2002. doi:10.1016/S1571-0661(04)80548-6.

12. Carlos Henrique C. Duarte and Tom Maibaum. A rely-guarantee discipline for open distributed systems design. *Information Processing Letters*, 74(1–2):55–63, April 2000. doi:10.1016/S0020-0190(00)00038-7.

13. Carlos Henrique C. Duarte. Proof-theoretic foundations for the design of actor systems. *Mathematical Structures in Computer Science*, 9(2):227–252, June 1999. doi:10.1017/S0960129599002765

14. Carlos Henrique C. Duarte. Moving software to a global platform. *IEEE Spectrum*, 33 (7):40–43, July 1996. doi:10.1109/6.526863.

9.1.4 - Papers in Regional Journals

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2. Carlos Henrique C. Duarte. 24th International requirements engineering conference (RE 2016) – Industry track post-conference report. *Revista do BNDES*, 46:313–323, December 2016. In Portuguese.

3. Carlos Henrique C. Duarte. A decade of continued support to the information and communication technology sector in Brazil: The most relevant events and the role of BNDES. *Revista do BNDES*, 19(37):91–126, June 2012. In Portuguese.

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4. Carlos Henrique C. Duarte. The quest for productivity in software engineering: A practitioners systematic literature review. In Stanley M. Sutton, Owe Armbrust, and Regnal Hebig, editors, *Proc. International Conference of Systems and Software Processes (ICSSP 2019)*, Montreal, Canada. pages 145–154. ACM, May 2019. doi:10.1109/ICSSP.2019.00027.

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9. Carlos Henrique C. Duarte. Patterns of cooperative technology development and transfer for software-engineering-in-the-large. In *Proc. 2nd. Int. Workshop on Software Engineering Research and Industrial Practice (SER-IP 2015)*, Florence, Italy. pages 32–38, May 2015. IEEE. doi:10.1109/SERIP.2015.14.

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9.1.7 - Poster Papers and Extended Abstracts

1. Carlos Henrique C. Duarte. Proof-theoretic foundations for the design of extensible software systems (extended abstract). *Bulletin of the European Association for Theoretical Computer Science*, 68:245–247, June 1999.

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3. Carlos Henrique C. Duarte and Roberto Ierusalimschy. On the systematic development of compilers: A case study. In Peter Fritzon, editor, *Proc. Poster Session of (CC'96) — International Conference on Compiler Construction*, number LITH-IDA-R-96-12 in Technical Report Series of Department of Computer and Information Science, pages 49–56, Linkoping, Sweden. April 1996. Linkoping University.

9.1.8 - Other Pubications

1. Xavier Franch, Emmanuel Letier, Carlos Henrique C. Duarte, Christof Ebert, Travis Breaux, and Anna Perini. Message from the conference chairs. In *24th IEEE International Requirements Engineering Conference (RE 2016)*, Beijing, China. pages xii–xiii, September 2016.

2. Andreas Jedlitschka, Ayse Bener, Carlos Henrique C. Duarte, and Smita Ghaisas. Message from the workshop chairs. In *Proc. 4th International Workshop on Conducting Empirical Studies in Industry (CESI 2016)*. Austin, USA. pages vii–viii, May 2016.

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5. Carlos Henrique C. Duarte. A road map to Java software development. Book review: Java application frameworks by Darren Govoni, Wiley publishing, New York, 1999, ISBN 0-471-32920-4, 410 pp. *IEEE Computer*, 17(5):120–123, September 2000. doi:10.1109/MS.2000.10045

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9.1.9 - Unpublished Work

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2. Carlos Henrique C. Duarte. A logico-categorical toolkit for automated rigorous software developement. Unpublished draft, 2006. doi:10.13140/RG.2.1.4307.6089.

3. Carlos Henrique C. Duarte. O BNDES no prêmio Assespro — melhor software de 1993: Colhendo subsídios para financiamento ao desenvolvimento de *software*. Relatório interno, BNDES/DESIS, July 1994.

4. Carlos Henrique C. Duarte and Edward H. Haeusler. Formal and informal techniques: A study about their integration using Statecharts. Technical Report 12/93, Department of Informatics, Pontifical Catholic University of Rio de Janeiro, Brazil, 1993. In Portuguese. doi:10.13140/RG.2.2.26852.54400.

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9.2 - Datasets

1. Carlos Henrique C. Duarte. Reviewed Literature on Software Productivity from 1987 to 2021. doi:10.13140/RG.2.2.26436.35205/1. Available: `http://www.chcduarte.com/ReviewedLiteratureOnSoftwareProductivity2021xlsx`. 2022.

2. Carlos Henrique C. Duarte. Reviewed Literature on Software Productivity from 1987 to 2017. doi:10.13140/RG.2.2.18086.24647/1. Available: `http://www.chcduarte.com/ReviewedLiteratureOnSoftwareProductivity2017xlsx`. 2019.

3. Carlos Henrique C. Duarte. Brazilian IT Company Revenues and Employment per Year from Secondary Sources from 1990 to 2016. doi:10.13140/RG.2.2.21125.35043/2. Available: `http://www.chcduarte.com/BrazilianITCompanyRevenuesEmploymentPerYearFromSecondarySources.xlsx`. 2017.

4. Carlos Henrique C. Duarte. Organisations with Appraised Quality Levels in Brazil from 1997 to 2016. doi:10.13140/RG.2.2.25047.68004/2. Available: `https://www.chcduarte.com/BrazilianOrganizationsWithAppraisalsPerYear.xlsx`. 2016.

10 - Honors and Recognitions

1. IEEE Computer Society Distinguished Contributor: Charter Member inducted in the inaugural class of 2022;
2. Best Reviewer Award, 5th International Conference on Digital Economy (ICDEc 2020). Bucharest, Romania and Online;
3. IEEE Computer Society Distinguished Speaker, from 2018 to 2021;
4. Listed in Marquis Who's Who in the World 2007, due to contributions to the Brazilian software industry.
5. PhD Thesis nominated by the Department of Computing of the Imperial College, London, for the British Computer Society Distinguished Dissertation Award of 1998;

11 - Miscellaneous

To secure employment in the state-owned companies where I have been employed, I was required to participate in public competitions. I was approved as the third candidate for the scientific programmer position at EMBRAPA. In the second case, I was ranked tenth and approved for the software engineer job at BNDES. Each competition had around 100 competitors per position on average.

Many Brazilian universities offered me a place in their Computing MSc programs, funded by CNPq research grants from the Brazilian National Research Council. The local newspaper in my hometown reported that I was ranked the top student in the admissions process for all these universities. However, I do not have formal proof of that. They were the Federal University of Rio de Janeiro (UFRJ), the Federal University of Minas Gerais (UFMG), the State University of Campinas (Unicamp), both at the Department of Automation and Control (DAC) and the Department of Computing Science (DCC), and also the Pontifical Catholic University of Rio de Janeiro (PUC-Rio). CNPq also supported me in my PhD studies.