Curriculum Vitae

Carlos Henrique Cabral Duarte

November 15, 2024

1 - Identification

1. Name: Carlos Henrique Cabral Duarte

2. Date of birth: 01/July/1970

3. City of birth: Juiz de Fora, MG, Brazil

4. Nationality: Brazilian and Portuguese citizen

2 - Personal Data

1. Affiliation: Dione Duarte†
   Aracy Cabral Duarte

2. Marital status: Married

3. Profession: Systems Analyst, University Professor

4. Residential address: Rua São João Batista 27/903, Botafogo
   Rio de Janeiro, RJ, Brazil, 22270-030

5. Commercial address: Av. República do Chile 100, Centro
   Rio de Janeiro, RJ, Brazil, 20031-917

6. Telephone numbers: +55 (21) 3497-7838 (residence), +55 (21) 98518-7838 (mobile),
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7. E-mail: `carlos.duarte@computer.org`; `cduarte@bndes.gov.br`

8. Web page: `http://www.chcduarte.com`; `http://www.bndes.gov.br`

9. ORCID iD: `https://orcid.org/0000-0002-9881-1527`

3 - Education

1. Postgraduate studies (1994-1999):
   Department of Computing, Imperial College, London, UK
   Degree: Ph.D. 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

4 - Languages

1. *Portuguese*: My native language.

2. *English*: Skillful reading and writing, but a bit deficient in conversation (C2).

3. *Spanish and German*: Comprehension of written and spoken language (A2).

4. *French*: Basic comprehension of written and spoken language (A1).

5 - Professional Experience

5.1 - 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)

   - Working Group to Plan the Attraction of Investments in the Local Integrated Circuit
     Industry
     Period: 2003-2012
     Role: Member (as a BNDES employer)

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

- 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 the creation of a solution to monitor financed projects by staff members. My expertise in the Natural 2 language for the ADABAS DBMS technology enabled me to contribute to the bank's standardization of software development activities. I led training efforts after system deployment and downsized parts of it to an operational environment consisting of Novell/Netware networks and software components developed using Fox Pro.

During my time as a systems analyst at BNDES from January 1993 to August 1994, I helped to standardize 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, I took on several roles, including technical staff member and financing manager, eventually becoming the deputy head of the Information Technology financing department. In these roles, I played a key part in supporting the growth of the Brazilian software industry by proposing and implementing new financing instruments. My duties were to visit information and communication technology companies, foster the production of business plans, to assess their feasibility and, when appropriate, to recommend these plans for financing by the bank. Thanks to these efforts, over fifty software companies received funding to implement their business plans, most of which was done through credit. Additionally, I helped two medium-sized enterprise resource planning software companies grow to the point where they were listed on the Bovespa Stock Market. I played a similar role in financing non-profit R&D organizations of the Information and Communication Technology sector.

After being relieved from my managerial role in 2012, I took on the role of an accreditation analyst and later an exports financing analyst. As an accreditation analyst, I assessed machinery, equipment, systems, and components to determine whether they met the requirements for BNDES funding. In this role, I handled accreditation requests from over 700 firms.

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 to support economic research activities, foster greater integration and coordination, and facilitate partnerships with other institutions. My work involved providing valuable support to the Economic Area Committee, an internal body that oversees the planning, monitoring, and review of economic research activities, as well as proposing objectives and targets for the organization'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 one to provide support to the work of IBGE on the compilation of the UN Sustainable Development Goals indicators.

3. *Scientific Programmer* (1989-1992[3])
   Brazilian Farming and Cattle Breeding Research Company – EMBRAPA
   Dairy Cattle Research Center – 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 improve the genetic quality of dairy cattle in Brazil. As a member of the team, I was responsible for developing the software to collect and analyze 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 through floppy disks sent by post. Our client applications ran on IBM-PC machines and were implemented using Turbo Pascal, while a Unix machine was used to analyze the collected data and perform statistical analyses using software written in C and FORTRAN 77. 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 and helped standardize data across the country by organizing a national meeting among breeding association representatives. As the project progressed, I also trained users, configured and installed equipment and software, and took part in a critical meeting with the Interamerican Development Bank (IDB) to discuss potential external funding for the National Information System of Farming and Cattle Breeding Research.

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

5.2 - 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

5.3 - 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 Center – CEN-SUD
              Rua General Canabarros, 500, Tijuca
              Rio de Janeiro, RJ, Brazil, 20271-201
   Journey: 24 hours
   Type: Short-term graduate course

5.4 - 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 places:

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

4. *Referee*: I have done some refereeing for the following journals and magazines:

(a) Sustainability (2024);

(b) Modelling (2024);

(c) Informatics (2024);

(d) Sage Open (2021-2024);

(e) Applied Sciences (2022-2023);

(f) Software (2023-2024);

(g) Electronics (2023-2024);

(h) Systems (2023);

(i) IEEE Access (2017-2022);

(j) IEEE Transactions on Software Engineering (2020);

(k) Requirements Engineering Journal (2018-2019);

(l) Foundations of Computing and Decision Sciences (2018);

(m) Journal of Industrial Information Integration (2017-2018);

(n) Journal of Computational Methods in Sciences and Engineering (2016-2017);

(o) Journal of Systems and Software (2002-2006);

(p) IEEE Software (2002);

(q) Information Processing Letters (2000-2001);

(r) Higher-Order and Symbolic Computation Journal (1998);

(s) Journal of Logic and Computation (1997-1998).

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

(a) IEEE International Requirements Engineering Conference (RE 2014-2020 and 2022-2024);

    (b) International Conference on Digital Economy (ICDEc 2020-2023);

    (c) International Conference on Software Engineering Advances (ICSEA 2016-2021);

    (d) International Workshop on Quality Requirements in Agile Projects (QuaRAP 2018);

    (e) IEEE International Workshop on Conflicts and Synergies among Reliability, Security, and other Qualities (CSRSQ 2018);

    (f) International Workshop on Just-in-time Requirements Engineering (JIT RE 2017);

    (g) International Workshop on Conducting Empirical Studies in Industry (CESI 2015);

    (h) International Conference on Algebraic Methodology and Software Technology (AMAST 1998);

    (i) International Conference on Fundamental Approaches to Software Engineering (FASE 1998 and 2001);

    (j) International Colloquium on Automata, Languages and Programming (ICALP 1997).

6. *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 National Coordination of Graduate Level Human Resources Improvement (CAPES) (Brasília, BR, 2010-2014);

    (b) Brazilian National Research Council (CNPq) (Brasília, BR, 1999-2003);

    (c) Foundation of Science and Technology Support of the Pernambuco State (FACEPE) (Recife, BR, 2001);

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

7. *Volunteering Activities*: I have been a member of the Institute of Electrical and Electronic Engineers (IEEE) and the IEEE Computer Society (IEEE CS) for more than 30 years:

    (a) Senior Member: Since 2012;

    (b) Full Member: From 1999 to 2011;

    (c) Student Member: From 1991 to 1998;

8. *Honors and Awards*:

    (a) IEEE Computer Society Distinguished Contributor: Charter Member inducted in the inaugural class of 2022;

    (b) Best Reviewer Award, 5th International Conference on Digital Economy (ICDEc 2020). Bucharest, Romania and Online;

    (c) IEEE Computer Society Distinguished Speaker, from 2018 to 2021;

    (d) Listee in Marquis Who is Who in the World 2007, due to contributions to the Brazilian software industry.

    (e) PhD Thesis nominated by the Department of Computing of the Imperial College, London, for the British Computer Society Distinguished Dissertation Award of 1998;

5.5 - Participation in Examining and Judgment Boards

1. *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: Ph.D. thesis in Portuguese
   Candidate: Wladmir Araújo Chapetta

2. *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: Ph.D. thesis in Portuguese
   Candidate: Antônio Espósito Junior

3. *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: Ph.D. thesis in Portuguese
   Candidate: Oswaldo Luiz Humbert Fonseca

4. *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

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

6. *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

7. *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

8. *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

5.6 - Event Organization and/or Participation

1. *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) and Industry Program Committee Member.

2. *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.

3. *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

4. *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

5. *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

6. *2nd International Workshop on Just-in-time Requirements Engineering* (JIT RE 2017)
   Location: Lisbon, Portugal (2017)
   Type of participation: Program Committee Member

7. *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 Organizing Committee in 2014-2015 and afterward became a member of the Advisory Board

8. *36th International Conference on Software Engineering* (ICSE 2014)
   Location: Hyderabad, India
   Type of participation: Panelist and judge of the technologies submitted to the Ready-Set-Transfer Technology Transfer Panel

9. *21st IEEE International Requirements Engineering Conference* (RE 2013)
   Institution: Department of Informatics, Pontifical Catholic University of Rio de Janeiro
   Type of participation: Panelist and judge of the technologies submitted to the Ready-Set-Transfer Technology Transfer Panel

10. *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

11. *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: Organizing Committee Member

12. *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)

6 - Publications and Datasets

6.1 - Publications

6.1.1 - 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.

2. Sofia Sherman, Irit Hadar, Gil Luria. Leveraging Organizational Climate Theory for Understanding Industry-Academia Collaboration. *Information and Software Technology* 98:148–160, June 2018.

6.1.1 - Edited Books, Proceedings and Journal Special Issues

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. Elsevier. June 2018.

2. Andreas Jedlitschka, Ayse Benner, Carlos Henrique C. Duarte and Smita Ghaisas. *Proceedings of the 4th International Workshop on Conducting Empirical Studies in Industry* (CESI 2015). 36 pages. ACM Press. May 2016.

3. Xavier Franch, Nazim Madhavji and Carlos Henrique C. Duarte. *Proceedings of the 3rd International Workshop on Conducting Empirical Studies in Industry* (CESI 2015). 56 pages. IEEE Computer Society Press. May 2015.

6.1.2 - 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. Dec. 2023.

2. Carlos Henrique C. Duarte. Software Productivity in Practice: A Systematic Mapping Study. *MDPI Software* 1(2):164–214. May 2022.

3. Carlos Henrique C. Duarte. Alternative Views Regarding Digital Transformation and Requirements Engineering in Embedded and Cyberphisical Systems. *IEEE Software* 39(3):9–10. May 2022.

4. Meira Levy, Lin Liu, Daniel Amyot, Eric Yu, Muneef Alshammari, Malak Baslyman, Elizabeth Bjarnason, Christopher Bull, Carlos Henrique C. Duarte, Eduard C Groen, Sami Jantunen, Sylwia Kopczynska, Lysanne Lessard, Ita Richardson, Jens Weber, Ziqi Wei. Requirements Engineering for Well-Being, Aging, and Health: An Overview for Practitioners. *IEEE Software* 38(3):7–12. May 2021.

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. March 2020.

6. Christof Ebert and Carlos Henrique C. Duarte. Digital Transformation. *IEEE Software* 35(4):16-21. July 2018.

7. Carlos Henrique C. Duarte, Andreas Jedlitschka, Ayse Benner. 4th International Workshop on Conducting Empirical Studies in Industry (CESI 2016) - Post-workshop Report. *ACM Software Engineering Notes* 42(2):15-18. April 2017.

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.

9. Carlos Henrique C. Duarte, Xavier Franch, and Nazim Madhavji. 3rd International Workshop on Conducting Empirical Studies in Industry (CESI 2015) - Post-workshop Report. *ACM Software Engineering Notes* 40(5):26-29. September 2015.

10. Carlos Henrique C. Duarte. Cooperative Development of a Software Industry. *IEEE Software* 19(3):84–87. March 2002.

11. Carlos Henrique C. Duarte and Tom Maibaum. A Branching Time Logical System for Open Distributed Systems Development. *Electronic Notes in Theoretical Computer Science* 67. March 2002.

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. May 2000.

13. Carlos Henrique C. Duarte. Proof-Theoretic Foundations for the Design on Actor Systems. *Mathematical Structures in Computer Science* 9(3):227-252. June 1999.

14. Carlos Henrique C. Duarte. Moving Software to a Global Platform. *IEEE Spectrum* 33(7):40–43. July 1996.

6.1.3 - Papers in Regional Journals

1. 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.

2. Carlos Henrique C. Duarte. A Decade of Support to the Information and Communication Technology Sector: Important Events and the Role of BNDES. *Revista do BNDES* 37:92–126. July 2012. In Portuguese.

3. Carlos Henrique C. Duarte and Carlos Eduardo C. Branco. Social and Economic Impacts of the Brazilian Policy for Information Technologies. *Revista do BNDES* 15:125–145. June 2001. In Portuguese.

6.1.4 - Papers in Proceedings of International Events

1. Carlos Henrique C. Duarte. How Long After Compliance Do You Benefit From Regulation? An Empirical Study on Diagnostic Imaging Equipment Requirements. In *Proc. 41th International Engineering in Medicine and Biology Conference (EMBC 2019)*. IEEE Press. Berlin, Germany. July 2019.

2. Carlos Henrique C. Duarte. The Quest for Productivity in Software Engineering: A Practitioners Systematic Literature Review. In *Proc. IEEE/ACM International Conference of Systems and Software Processes (ICSSP 2019)*. pages 145–154. IEEE Computer Society Press. Montreal, Canada. May 2019.

3. Carlos Henrique C. Duarte. The Influence of Tax Incentive and Market Regulation Requirements on IT Companies: Empirical Evidence from the Brazilian Industry. International Workshop on Requirements Engineering and Law (RELAW 2016). In: *RE 2016 Workshop Proceedings*. pages 239–248. IEEE Computer Society Press. Beijing, China. September 2016.

4. Christof Ebert and Carlos Henrique C. Duarte. Requirements Engineering for the Digital Transformation: An Industry Panel. In *Proc. 24th IEEE International Requirements Engineering Conference (RE 2016)*. pages 4–5. IEEE Computer Society. Beijing, China. September 2016.

5. Carlos Henrique C. Duarte and Tony Gorschek. Technology Transfer – Requirements Engineering Research to Industrial Practice: An Open (Ended) Debate. In *Proc. 23rd International Requirements Engineering Conference* (RE 2015). pages 414–415. IEEE Computer Society Press. Ottawa, Canada. August 2015.

6. Xavier Franch, Nazim Madhavji and Carlos Henrique C. Duarte. 3rd. International Workshop on Conducting Empirical Studies in Industry (CESI 2015) - Pre-workshop report. In *Proc. 37th International Conference on Software Engineering* (ICSE 2015). pages 967–968. IEEE Computer Society Press. Florence, Italy. May 2015.

7. Carlos Henrique C. Duarte. Patterns of Cooperative Technology Development and Transfer for Software-Engineering-in-The-Large. In *Proc. 2nd International Workshop on Software Engineering Research and Industrial Practice* (SER&IP 2015). pages 32–38. IEEE Computer Society Press. Florence, Italy. May 2015.

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7 - 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 courses, using research grants from CNPq, the Brazilian National Research Council. The local newspaper of my hometown reported that I was graded as the top student in the admission processes of all these universities, although 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 Ph.D. studies.